TOSHIBA

FILE NO. 040-200104

SERVICE MANUAL

COLOUR TELEVISION

A9PJ Chassis

43A9UE,43A9UA

Aug., 2001

TABLE OF CONTENTS

CHAPTER 1 **GENERAL ADJUSTMENTS**

SAFETY INSTRUCTIONS 3
CRT ASSEMBLY REPLACEMENT AND MOUNTING 4
PICTURE TUBE COMPONENTS ADJUSTMENT 6
SERVICE POSITION 9
SERVICE MODE 10
DESIGN MODE 13
ELECTRICAL ADJUSTMENT 14
CONVERGENCE ADJUSTMENT 17
SCREEN AND MIRROR ALIGNMENTS 22
CIRCUIT CHECKS 23

CHAPTER 2 **SPECIFIC INFORMATIONS**

SETTING & ADJUSTING DATA 24
LOCATION OF CONTROLS 25
PROGRAMMING CHANNEL MEMORY 27
CIRCUIT BLOCK DIAGRAM 29
MECHANICAL DISASSEMBLY 30
CHASSIS AND CABINET REPLACEMENT PARTS LIST 31
PC BOARDS BOTTOM VIEW 49
TERMINAL VIEW OF TRANSISTORS 58
SPECIFICATIONS 61
APPENDIX:
CIRCUIT DIAGRAM

CHAPTER 1 GENERAL ADJUSTMENTS

SAFETY INSTRUCTIONS

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" INSTRUCTIONS BELOW.

X-RAY RADIATION PRECAUTION

1. Excessive high voltage can produce potentially hazardous X-RAY RADIATION. To avoid such hazards, the high voltage must not be above the specified limit. The nominal value of the high voltage of this receiver is (A) kV at zero beam current (minimum brightness) under a (C) V AC power source. The high voltage must not, under any circumstances, exceed (B) kV.

   Refer to table-1 for high voltage (A), (B) & AC voltage (C). (See SETTING & ADJUSTING DATA on page 24)

   Each time a receiver requires servicing, the high voltage should be checked following the HIGH VOLTAGE CHECK procedure in this manual. It is recommended that the reading of the high voltage be recorded as a part of the service record. It is important to use an accurate and reliable high voltage meter.
2. The only source of X-RAY RADIATION in this TV receiver is the picture tube. For continued X-RAY RADIATION protection, the replacement tube must be exactly the same type tube as specified in the parts list.
3. Some part in this receiver have special safety-related characteristics for X-RAY RADIATION protection. For continued safety, parts replacement should be undertaken only after referring to the PRODUCT SAFETY NOTICE below.

SAFETY PRECAUTION

WARNING : Service should not be attempted by anyone unfamiliar with the necessary precautions on this receiver. The following are the necessary precautions to be observed before servicing this chassis.

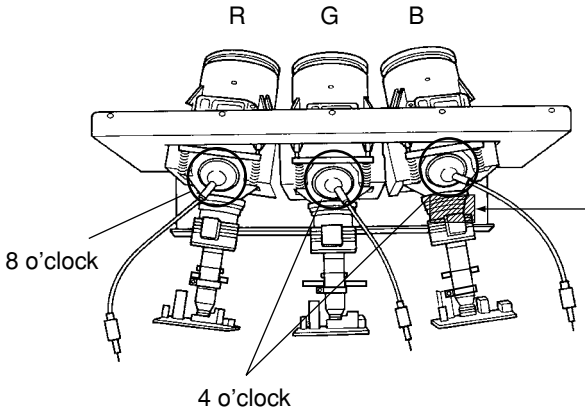
1. An isolation transformer should be connected in the power line between the receiver and the AC line before any service is performed on the receiver.
2. Always discharge the picture tube anode to the CRT conductive coating before handling the picture tube. The picture tube is highly evacuated and if broken, glass fragments will be violently expelled. Use shatter proof goggles and keep picture tube away from the unprotected body while handling.
3. When replacing a chassis in the cabinet, always be certain that all the protective devices are put back in place, such as; nonmetallic control knobs, insulating covers, shields, isolation resistor-capacitor network etc.

PRODUCT SAFETY NOTICE

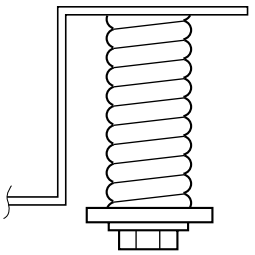
Many electrical and mechanical parts in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the international hazard symbols on the schematic diagram and the parts list.
Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create shock, fire, X-ray radiation or other hazards.

CRT ASSEMBLY REPLACEMENT AND MOUNTING

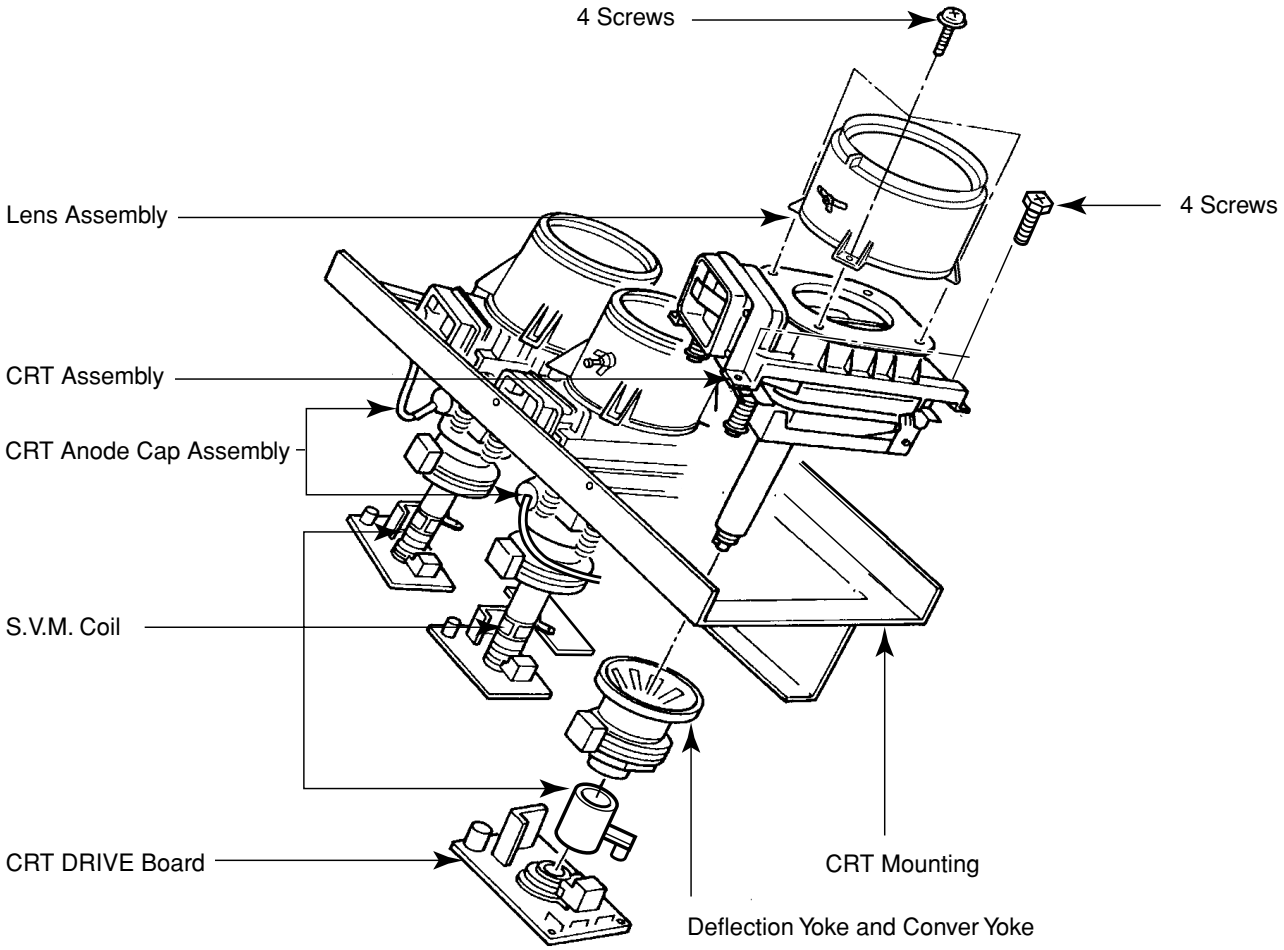
CAUTION : DO NOT LOOSEN THE HEX HEAD BOLTS WITH SPRINGS (12 PCS), BECAUSE THOSE ARE FOR SEALING OF CRT COOLANT.



Attention Serviceman



The Hex Head Bolts with Springs. (see sketch) used on CRT assembly, are "NOT" Adjustment Screws DO NOT LOOSEN-FLUID LEAKAGE WILL OCCUR.



Lens and Neck Components View

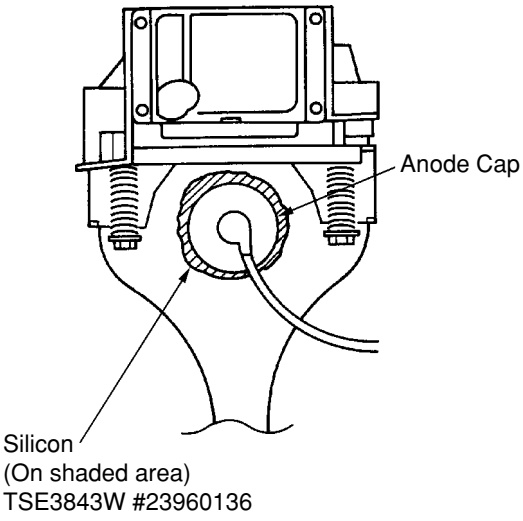
TO REMOVE CRT (Same procedure for R, G, B)

1. Remove CRT DRIVE Board, S. V. M. COIL and DEF. YOKE from CRT.
2. Remove Lens Assembly.
3. Detach CRT Anode Cap from CRT.
4. Remove CRT Assembly from CRT Mounting.

CRT REPLACEMENT (Same procedure for R, G, B)
Reverse the removal procedures except the followings.

1. Anode Cable should be replaced with new one. See "SERVICING PRECAUTIONS" shown below.
2. Install silicon (T461B) to the CRT, replace the Anode cable and put enough silicon again on around the Anode Cap as illustrated.

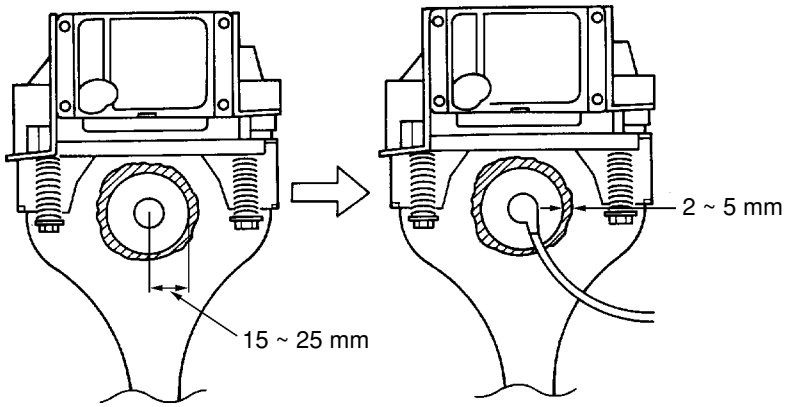
CAUTION: Align the Anode cable as illustrated on page 4.



ADJUSTING PROCEDURE IN REPLACING CRT

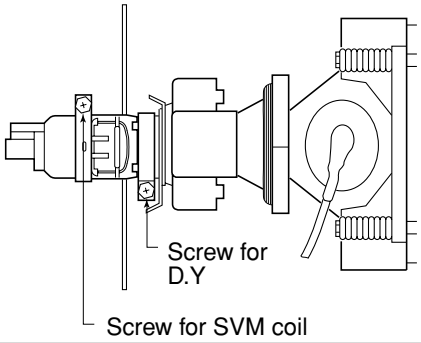
1. R.G.B. CUTOFF (SCREEN VR) ADJUSTMENT (page 6.)
2. R.G.B. FOCUS ADJUSTMENT (page 6.)
3. PICTURE TILT ADJUSTMENT (page 7.)
4. USER CONVERGENCE CENTER CHECK (Refer to owner's manual.)
5. CENTERING ADJUSTMENT (page 7.)
6. CONVERGENCE ADJUSTMENT (page 17.)
7. WHITE BALANCE ADJUSTMENT (page 14.)

Adjustments are complete.



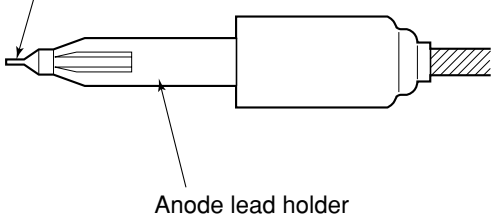
SERVICING PRECAUTIONS

■ Do not use a magnetized screw driver for screws of Deflection Yoke and Velocity Modulation Coil to avoid magnetization of electron gun. Magnetization of electron gun will degrade basic function and result in unbalance of right and left shift of user static convergence, and result in no variable quantity.



■ When replacing the anode cap assembly (CRT) or anode lead assembly (F.B.T.), remove the anode lead holder from old one and attach the holder again to new anode lead.

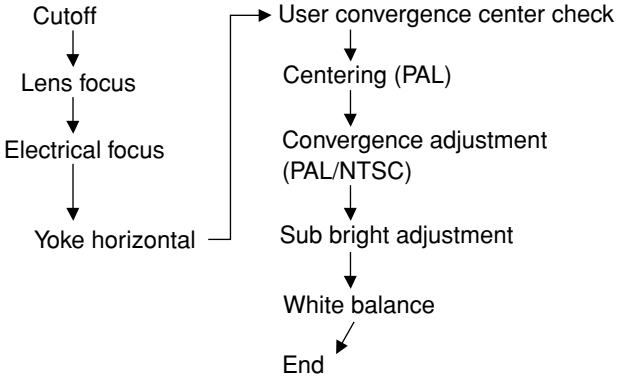
■ Check the point of anode lead in a straight line, if it is winding, please revise it.



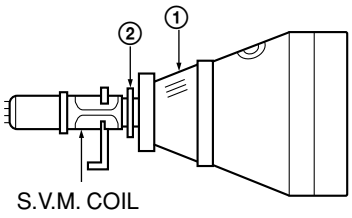
WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF THIS MANUAL.

PICTURE TUBE COMPONENTS ADJUSTMENT

ADJUSTING PROCEDURE IN REPLACING CRT



DESCRIPTION OF NECK COMPONENTS



① Deflection yoke and convergence yoke.
The position on the neck is required most front (CRT funnel side) and the screw is fastened after rotating yoke adjusting picture tilt.

② Centering magnet
After adjusting picture tilt, picture position is finally fixed by this magnet.
In order to get maximum margin of user convergence control for center of screen, this magnet have to be used for center convergence adjustment.

PREPARATION
Operate the receiver for at least 5 minutes.

R, G, B CUTOFF (SCREEN VR) ADJUSTMENT

1. Adjust before replace the screen assembly.
2. Set user control to reset position.
   (CONTRAST → Max
   BRIGHTNESS, COLOR, TINT → Center.)
3. Call up the adjustment mode display, then select the item RCUT.
4. Adjust the data of items **RCUT**, **GCUT**, and **BCUT** to "40H".
5. Press the ⊖ button on PJTV. (Y-MUTE : ON)
6. Gradually rotate R, G and B screen volume of FOCUS PAC clockwise or counterclockwise until the raster appears slightly on the CRT through the each lens, and leave them.
   (Lookin to the lens in order to check the raster.)
7. Press the ⊖ button on PJTV. (Return to Normal Picture)

RGB FOCUS ADJUSTMENT

1. Call-up the adjustment mode (see page 10)
2. Press ⊖ button on the remote controller in order to display the internally-generated white cross-hatch (or white cross-dot). (White cross-hatch or white cross-dot on a black background. See TEST SIGNAL SELECTION on page 11.)
3. Expose only RED by covering the GREEN and BLUE lenses with caps.
4. Loosen the RED lens fixing screws (refer to Fig. a), and adjust the RED lens focus to obtain the sharpest point while observing the middle and peripheral sections of the screen.

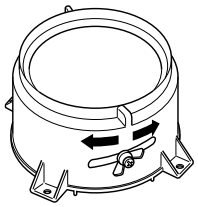


Fig. a

5. Use the focus VR of "R" of the focus pack in order to adjust the electric focus in the middle and peripheral sections of the screen to its sharpest level.
6. Check the RED focus of the whole screen and if necessary repeat steps 4 and 5.
7. Fix the RED lens by tightening its fixing screws.
8. Expose only GREEN by covering the RED and BLUE lenses with caps.
9. Display the internally-generated white cross-hatch (or white cross-dot) signal.
10. Adjust the GREEN lens focus on the left border of the screen to its sharpest level, then check the focus on the right border, and if it is at its sharpest level, fix it in that position by tightening the lens screws.

    (1) If the horizontal line toward the right border is red-flared, turn the lens screw slightly right in order to balance it with the left border. (After adjustment, the left border tends to be slightly green-flared, and the right border tends to be slightly red-flared.)
    (2) If the horizontal line toward the right border is green-flared, turn the lens screw slightly left in order to balance it with the left border. (After adjustment, the left border tends to be slightly red-flared, and the right border tends to be slightly green-flared.)

Note: The aim of the above-described adjustment procedure for the Green lens focus is to obtain the best lens focus after 2 - 3 hours of warming up taking into account the focus drift; it applies if the warming up time before the adjustment is less than 30 minutes. (The horizontal line in the screen middle section tends to be slightly red-flared.)

In case of warming up of more than 2 hours under a condition that the large anode current is running through the projection tube so that for example the all-white pattern appears, adjust to obtain the sharpest focus while observing the whole screen like in the RED case.

11. Use the focus VR of "G" of the focus pack in order to adjust the electric focus in the middle section of the screen to its sharpest level.

Note: Normally the most clearly visible point of the scanning line is the sharpest point of the Green focus, however as the characteristics vary depending on the projection tube, the sharpest focus points of the vertical and horizontal lines may not match each other, thus when you turn the focus VR, if the picture tends to be tremendously unstable (rolls horizontally or vertically), adjust the balance of the vertical and horizontal lines to its best position.

12. Check the GREEN focus of the whole screen and if necessary repeat steps 10 and 11.
13. Fix the GREEN lens by tightening up its fixing screws.
14. Expose only BLUE by covering the RED and GREEN lenses with caps.
15. Display the internally-generated black cross-hatch.
16. Loosen the BLUE lens fixing screws (refer to Fig. a), and adjust the BLUE lens focus while observing the middle and peripheral screen sections.
17. Use the focus VR of "B" of the focus pack in order to adjust the focus in the middle section of the screen to its sharpest level.
    (The point of the Blue focus becomes sharpest when the brightness level of BLUE is lowest, the cross-hatch is clearly visible.)

Note: Keep in mind that only the BLUE electric focus is adjusted with the black cross-hatch.

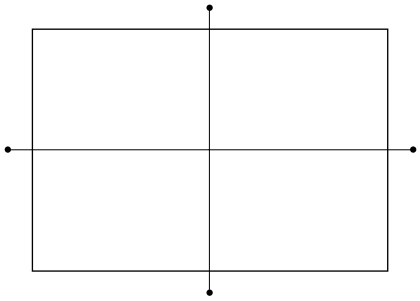
18. Check the BLUE focus of the whole screen and if necessary repeat steps 17 and 19.
19. Fix the BLUE lens by tightening its fixing screws.

TILT ADJUSTMENT

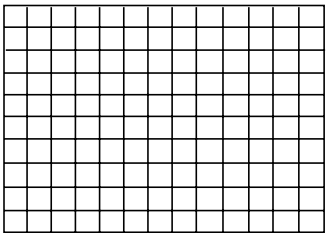
Rotate R, G, B deflection yoke so that picture becomes horizon, then fasten screw.

CENTERING ADJUSTMENT

1. Stretch a thread between two center of screen edge (top and bottom, left and right).



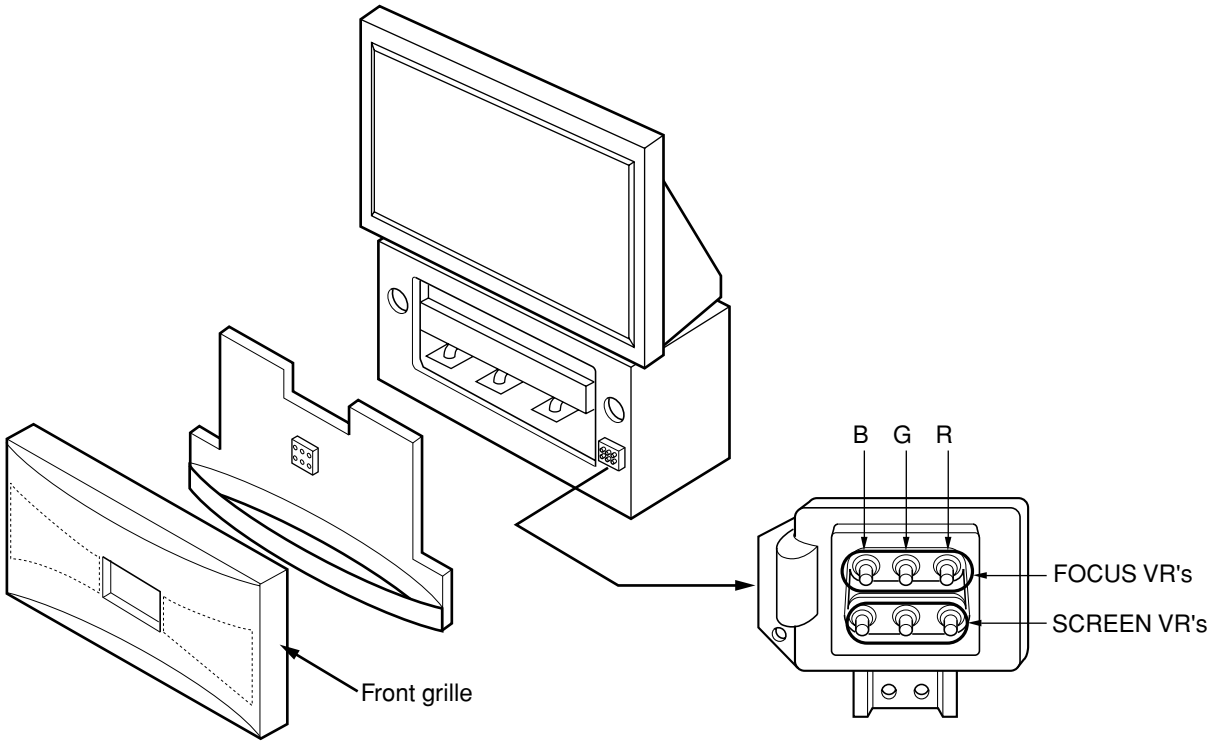
2. Select the adjustment mode. (See page 10.)
3. Press TV/VIDEO button on the Remote Control to display the black cross-hatch.



4. Adjust G centering magnet so that the cross-hatch pattern center comes to screen center.
5. Perform HEIGHT adjustment . (See page 14.)
6. Perform WIDTH adjustment. (See page 14.)
7. Check whole quality of green line.
8. Adjust R, B centering magnet so that the cross-hatch pattern center comes to screen center.

LOCATION OF SCREEN AND FOCUS VR'S

To remove the Speaker grille and Front panel.



REPLACEMENT OF HIGH VOLTAGE CABLE

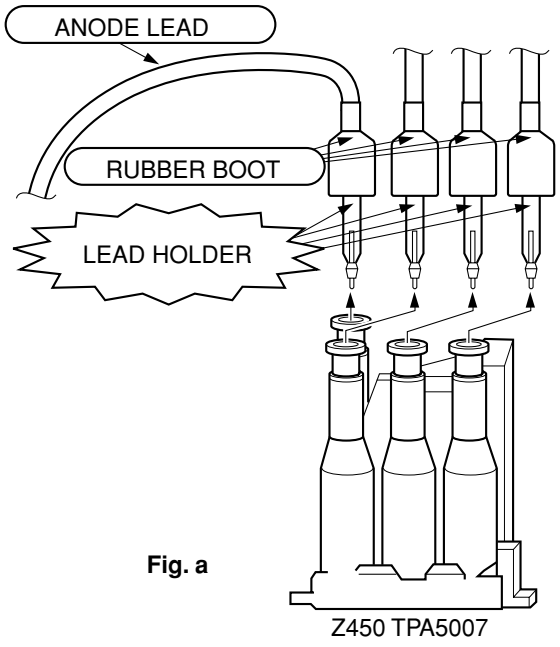


Fig. a

1. When replacing Anode Lead or Anode Cap with new one, remove Lead Holder from old lead as shown in figure below, and put it on new lead. Do not throw away Lead Holder.

NOTE : THE LEAD HOLDER IS ATTACHED TO TPA5007 (Z450), BUT IS NOT ATTACHED TO ANODE LEAD AND ANODE CAP. RUBBER BOOT IS ATTACHED TO ANODE LEAD AND ANODE CAP.

2. Detaching Lead Holder

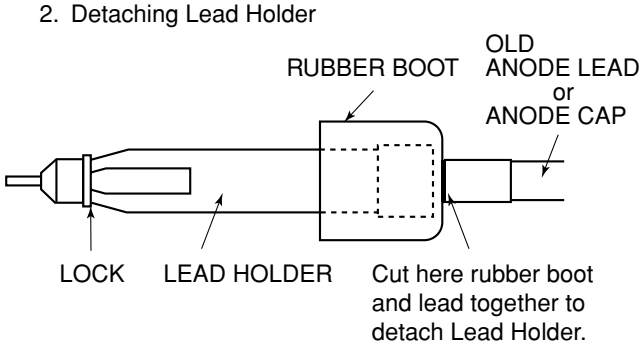


Fig. b

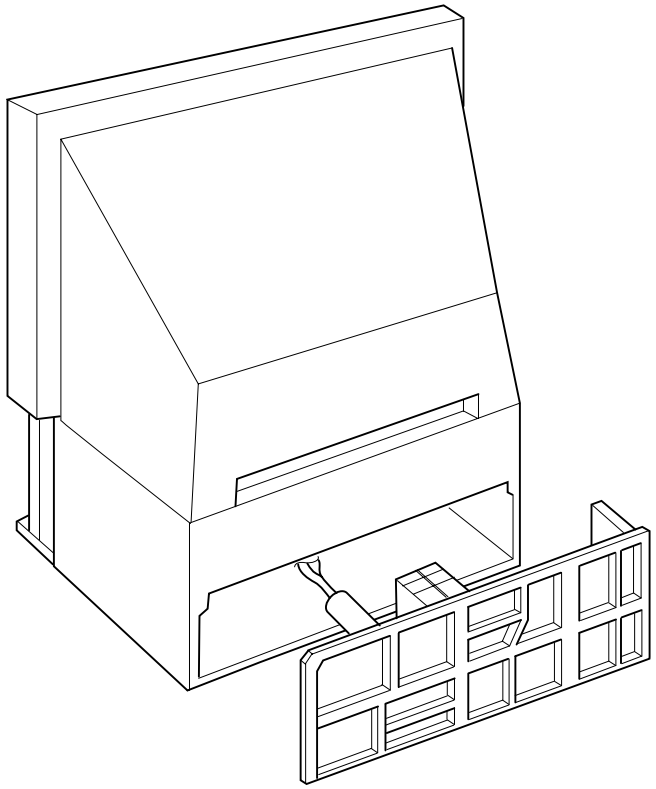
WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF THIS MANUAL.

SERVICE POSITION

In order to assure the performance, processed wires shall be replaced after the repair work.
Work procedures are as follows:

1. Remove the back board.
2. Remove lead wires.
3. Draw out the chassis.

After repair work finished, replace it in the opposite procedure.



SERVICE MODE

1. ENTERING TO SERVICE MODE

1) Press 🔇 button once on Remote Control.

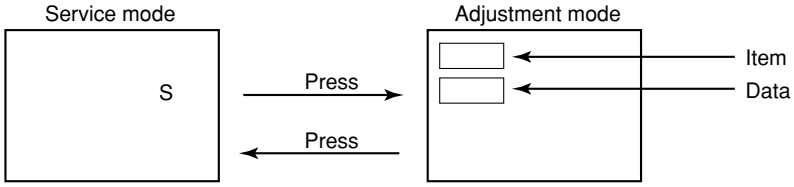
2) Press 🔇 button again to keep pressing.

3) While pressing the 🔇 button, press MENU button on TV set.

(Service mode display)

2. DISPLAYING THE ADJUSTMENT MENU

1) Press MENU button on TV.



3. KEY FUNCTION IN THE SERVICE MODE

The following key entry during display of adjustment menu provides special functions.

Screen adjustment mode ON/OFF:	-/-- ("Info") button (on Remote)
Test signal selection :	⊖ button (on Remote)
Selection of the adjustment items :	Channel ▲/▼ (on TV or Remote)
Change of the data value :	Volume ◿ +/– (on TV or Remote)
Adjustment menu mode ON/OFF :	MENU button (on TV)
Initialization of the memory (QA02) :	CALL + Channel button on TV (▲)
Reset the count of operating protect circuit to "00":	CALL + Channel button on TV (▼)
"RCUT" selection :	1 button
"GCUT" selection :	2 button
"BCUT" selection :	3 button
"SCNT" selection :	4 button
"COLC" selection :	5 button – – – – – Color thickness correction
"TNTC" selection :	6 button note: Displayed differently as shown below, de-
Convergence adj :	YELLOW button pending on the setting of the receiving color
Self diagnostic display ON/OFF :	9 button system.
	COLP (PAL)
	COLC (NTSC)
	COLS (SECAM)

CAUTION : Never try to perform initialization unless you have changed the memory IC.

4. SELECTING THE ADJUSTING ITEMS

1) Every pressing of CHANNEL ▲ button in the service mode changes the adjustment items in the order of table-2. (▼ button for reverse order)

Refer to table-2 for preset data of adjustment mode.
(See SETTING & ADJUSTING DATA on page 24)

5. ADJUSTING THE DATA

1) Pressing of VOLUME ◿ +/– button will change the value of data in the range from 00H to FFH. The variable range depends on the adjusting item.

6. EXIT FROM SERVICE MODE

1) Pressing POWER button to turn off the TV once.

■ INITIALIZATION OF MEMORY DATA OF QA02

After replacing QA02, the following initialization is required.

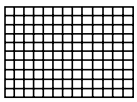
1. Enter the service mode, then select any register item.
2. Press and hold the CALL button on the Remote, then press the CHANNEL ▲ button on the TV. The initialization of QA02 has been complated.
3. Check the picture carefully. If necessary, adjust any adjustment item above.
   Perform “Auto search Memory” on the owner’s manual.

CAUTION: Never attempt to initialize the data unless QA02 has been replaced.

7. TEST SIGNAL SELECTION

1) Every pressing of ⊖ button on the Remote Control changes the built-in test patterns on screen as described below in SERVICE MODE.

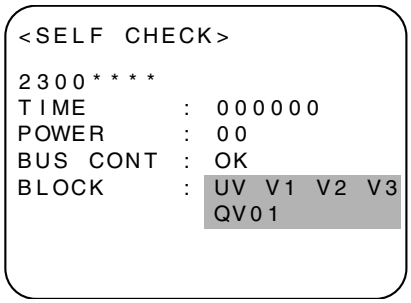
Signal off → PAL signals (5 patterns) → NTSC signals (5 patterns) → Signal off

Signals	Picture
• Red raster • Green raster • Blue raster • All White	
• Black cross-hatch	

* The signals marked with ▒ are not usable to display in the Test signal for some model.

8. SELF DIAGNOSTIC FUNCTION

1) Press “9” button on Remote Control during display of adjustment menu in the service mode.
   The diagnosis will begin to check if interface among IC’s are executed properly.
2) During diagnosis, the following displays are shown.



Indicated color of mode now selected : Green and Red
Indicated color of other modes : White

Green : Normal
Red : The microcomputer operates to provide judgement of no video signal. The red color is still indicated though the signal is input, failure may exist in input signal line including QV01.
QV01 : In case of indication green ---Normal
In case of indication red with input signal----
Failure may exist in output line including QV01.

① Part number of microcomputer (QA01)
② Total hour of turn the Power on. (unit: hour)
③ Operation number of protecting circuit ----“00” is normal.
When indication is other than “00”, overcurrent apts to flow, and circuit parts may possibly be damaged.
④ BUS CONT ----“OK” is normal.
When indication shows “Q ○○○ (Green: OK, Red: NG)”, the device with the number may possibly be damaged.
⑤ BLOCK
UV : TV reception mode
V1 : VIDEO 1 input mode (→①1)
V2 : VIDEO 2 input mode (→①2)
V3 : VIDEO 3 input mode (→①3)

* The items marked with ▒ are not usable to display in the SELF DIAGNOSTIC FUCTION for some model.

DESIGN MODE

1. ENTERING TO DESIGN MODE

1) Select the Service mode. 2) While pressing CALL button on Remote and press MENU button on TV. 3) Press MENU button on TV.

When QA02 is initialized, items “OPT0” and “OPT1” of DESIGN MODE are set to the data of the representative model of this chassis family.
Therefore, because ON-SCREEN specification remains in the state of the representative of model. This model is required to reset the data of items “OPT0” and “OPT1”.

2. SELECTING THE ADJUSTING ITEMS

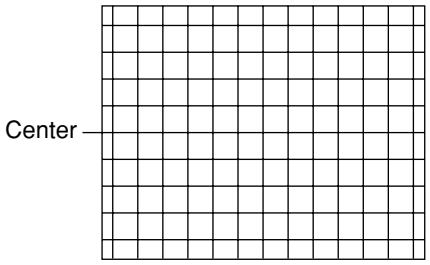
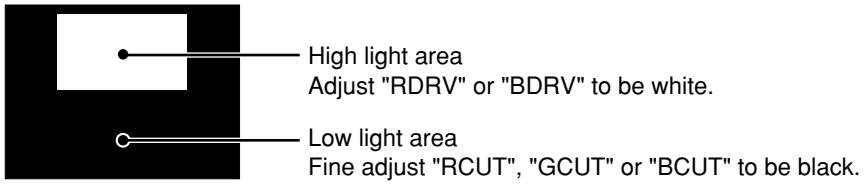
Every pressing of CHANNEL ▼ button in the design mode changes the adjustment items in the order of table-3. (▲ button for reverse order)

Refer to table-3 for data of design mode.
(See SETTING & ADJUSTING DATA on page 24)

3. ADJUSTING THE DATA

Pressing of VOLUME ▲ or ▼ button will change the value of data.

ELECTRICAL ADJUSTMENT

ITEM	ADJUSTMENT PROCEDURE
WIDTH (WID)	1. Call up the adjustment mode display, then select the item **WID**. 2. Press the VOLUME ▼ button to get the picture so the left or right edges of raster begins to lack. 3. Press the VOLUME ▲ button to advance the data by 15 steps. Note : Check the horizontal picture position is correct.
VERTICAL LINEARITY (VLIN)	1. Call up the adjustment mode display, then select the item **VLIN**. 2. Press the TV/VIDEO button on Remote until the cross-hatch pattern appears on the screen. 3. Press the VOLUME ▲ or ▼ button to obtain the picture of the best linearity 
HEIGHT (HIT)	1. Call up the adjustment mode display, then select the item **HIT**. 2. Press the VOLUME ▼ button to get the picture so the top or bottom of raster begins to lack. 3. Press the VOLUME ▲ button to advance the data by 9 steps. Note : Check the vertical picture position is correct.
WHITE BALANCE (RCUT) (GCUT) (BCUT) (RDRV) (BDRV)	Black and White pattern  1. Set user control to reset position. (CONTRAST → Max BRIGHTNESS, COLOR, TINT → Center.) 2. Call up the adjustment mode display, then select the item RCUT. 3. Adjust the data of items **RCUT**, **GCUT**, and **BCUT** to "40H". 4. Press the -/-- button on Remote. (Y-MUTE : ON) 5. Gradually rotate R, G and B screen volume of FOCUS PAC clockwise or counter-clockwise until the raster appears slightly on the CRT through the each lens, and leave them. (Lookin to the lens in order to check the raster.) 6. Press the -/-- button on Remote. (Return to Normal Picture) 7. Press the ⊖ button on Remote, and select the Black and White pattern. 8. Adjust the data of items **RCUT**, **GCUT** and **BCUT** for proper white-balanced picture in low light area. 9. Adjust the data of items **RDRV** and **BDRV** for proper white-balanced picture in high light area. 10. Check the white balance in both low and high light areas. If necessary, perform again steps from 8 to 9.

Item	Name	Setting (User control)	Input signal	Measurement point	Adjustment procedure	Adjustment standard
[SCNT]	Sub-contrast	DYNAMIC mode	Sub-bright signal	Q510 (TP46R)	Adjust the amplitude from the pedestal level to the white peak.	2.5 ± 0.2 V p-p
[BRTC]	Sub-bright center	DYNAMIC mode	Sub-bright signal	Screen adjustment	1) Adjust the number of collapsed black lines of sub-bright signal. 2) This adjustment shall be done after W/B [SCNT] adjustment.	4 ± 1.5 lines
[COLC]	Sub-color center PAL	DYNAMIC mode	Sub-bright signal (NTSC)	Q510 (TP46B)	1) Adjustment the colour bar amplitude. 2) Adjust the P-P value of the upper half.	1.7 ± 0.2 V p-p
[COLP]	Sub-color center PAL	DYNAMIC mode	Sub-bright signal (PAL)	Q501 (TP46B)	1) Adjustment the colour bar amplitude. 2) Adjust the P-P value of the upper half.	1.7 ± 0.2 V p-p
[COLS]	Sub-colour center SECAM	DYNAMIC mode	SECAM colour bar	Q510 (TP46B)	1) Adjust the amplitude of colour bar. (Apply picture mute for this adjustment.) 2) Adjust the P-P value of the upper half.	2.2 ± 0.2 Vop
Screen adjustment	Screen	Factory screen adjsutment mode		CRT tube surface	1) Make the surrounding as dark as possible. 2) Set to the factory screen adjustment mode (Y mute, DRV. CUT= 40H) 3) Observing the CRT tube surface directly, adjust the screen VR to the point where the tube starts to be bright. 4) Perform this adjustment for each R, G and B tube.	Point where the tube starts to glow.
Focus adjustment	Focus	DYNAMIC mode	RETMA (PAL-1)	Screen Adjustment	1) Repeat the electric focus and optical focus adjustments for the best position. 2) As to CRTs other than the one for the adjustment, shield them with a jig. 3) Perform this adjustment for each R, G and B tube.	
[RDRV] [BDRV]	White balance at bright part			Screen Adjustment	Adjust the colour temperature at the bright part (103cd/m^2).	11500K-0.002uv
[RCUT] [BCUT]	White balance at dark part			Screen Adjustment	Adjust the colour temperature at the dark part (17cd/m^2).	10500K-0.002uv

Item	Name	Setting (User control)	Input signal	Measurement point	Adjustment procedure	Adjustment standard
V-Balance voltage adj.	V-Balance voltage	DYANAMIC	Phillips pattern	TP-V–TP-G	Hook it up with a digital voltmeter, and adjust the DC voltage according to VPOS data.	10 ± 10 mV
Vertical position adjustment		DYNAMIC	Phillips pattern (PAL-I)	Screen adjustment	1) Adjust the centering magnet so that the vertical position comes to the center of the dummy screen (cross pattern). 2) Do not change [VPOS] data.	
Horizontal position adjustment		DYNAMIC	Phillips pattern (PAL-I)	Screen adjustment	1) Adjust the centering magnet so that the horizontal position comes to the center of the dummy screen (cross pattern). 2) Do not change [HPOS] data.	
[HIT] [VLIN]	Vertical amplitude adjustment	DYNAMIC	Phillips pattern (PAL-I)	Screen adjustment	Adjust the vertical amplitude so that top and bottom flags disappear. (Align the vertical center of the pattern with the center mark of the mask.)	
[WID]	Horizontal amplitude adjustme	Reset 1 mode	Phillips pattern (PAL-I)	Screen adjustment	Adjust the horizontal amplitude so that the left and right flags disappear.	

Unit adjustment : DIGITAL-CONVER

Item	Name	Setting (User control)	Input signal	Measurement point	Adjustment procedure	Adjustment standard
PLL frequency adjustment				Q709 emitter	1) Apply the following voltages to the respective terminals of P701. +5V to the terminals #15 and #16 +9V to the terminals #13 -9V to the terminals #14 2) By L719, adjust the frequency of the emitter Q709.	32 ± 0.1 kV

CONVERGENCE ADJUSTMENT

1. PICTURE ADJUSTMENT

The adjustment are done on two screens; 50 Hz mode (PAL) and 60 Hz mode (NTSC). To synchronize correction wave to each frequency, receive the suitable signal.

Note: The convergence circuit is a circuit to eliminate screen distortion and can not make a drastic correction such as to correct entire screen size. An excessive correction may actuate the protection circuit. So a care will be necessarry.

1-1. Change of Memory (E^2PROM)

Memory of Q711 E^2PROM is nonvolatile, and adjusted data is stored. Since data in RAM of Q701 is eliminated with power OFF, the RAM is set by soft command of micro-processor QA01 at every power ON. The adjusted data which is obtained from screen-watching is once stored in RAM inside Q701. The whole data in RAM which is corrected on each adjusting point and is changed, is saved into E^2PROM (Q711) as a fixed data. The data capacity per one screen requires 8k for 50 Hz mode (PAL), and 4k for 60 Hz mode (NTSC).

1-2. Service Mode

1-2-1. Outline

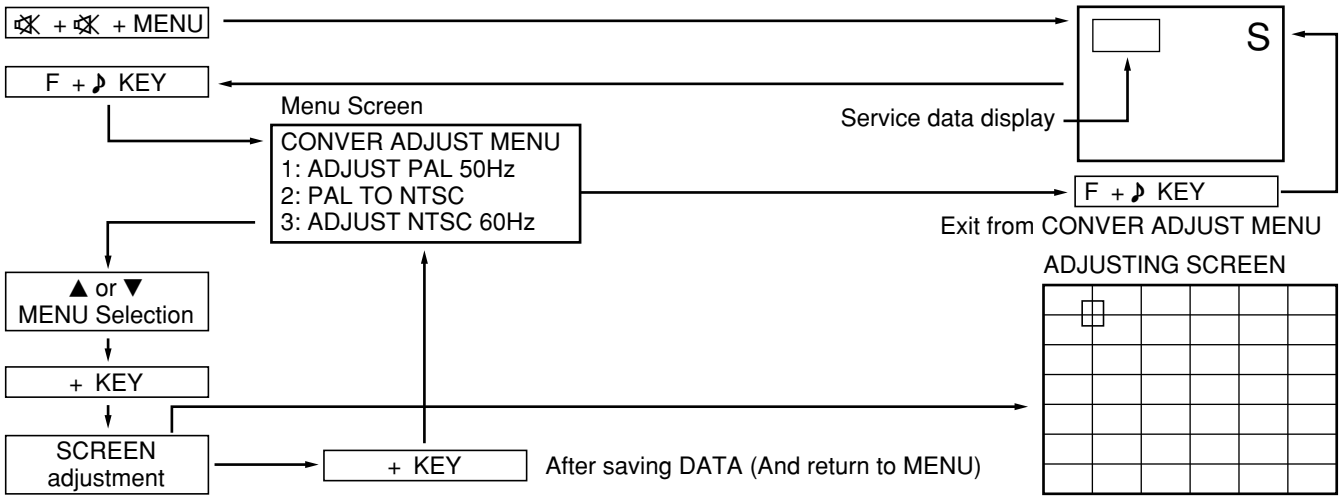
Service mode is controlled by software of micro-processor QA01, and is one of function of set.

This mode is designed so that ordinary user cannot use this, and special operation is required to use this.

Data change is done by direct shift (cursor display) of adjusting points; 50 Hz mode (PAL) 8 × 8/1 color and 60 Hz mode (NTSC) 8 × 7/1 color.

1-2-2. To Enter and to Exit

Press mute (🔇) key on remote hand unit at twice, and keep pressing, then press MENU key of set console. The service data will be display on the top left screen. Under this condition, press "F+♪" keys on remote hand unit. The CONVER ADJUST MENU will appear on the screen. Further, press "F+♪" again, the screen returns to original picture.



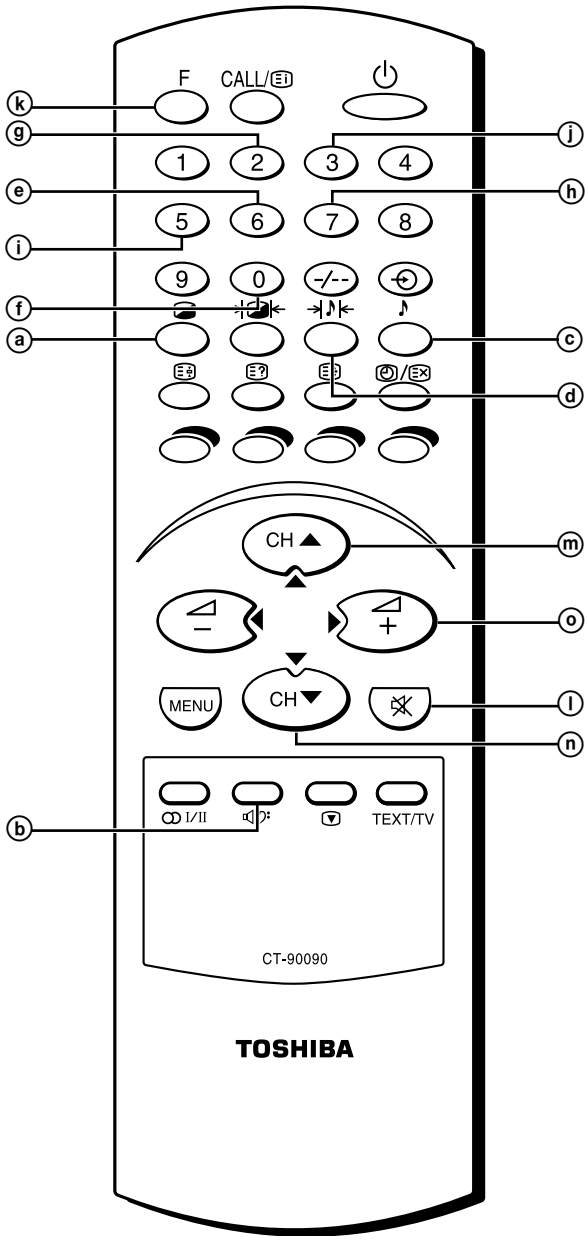
Note: Before proceeding to the adjustment for each screen, always perform the adjustments for vertical size (HIT) and horizontal size (WID) with the main deflection data changed.

1-2-3. Adjustment menu

Order of the adjusting screens is PAL 50Hz → NTSC 60 Hz
The menu order is 1 → 2 (Data conversion).—when the vertical sync is 50 Hz.
Next menu order is 3.—when the vertical sync is 60 Hz.

No.	Item	Description
1	ADJUST PAL 50Hz	Allows manual adjustment in PAL mode. Perform the adjustments according to dimensions specified.
2	PAL TO NTSC	Automatically saves auxiliary forecasted data of NTSC 60 Hz screen by referring PAL 50 Hz screen. The calculated data are saved on NTSC 60 Hz screen, and then the operation completes. In this case, NTSC 60 Hz screen is created through the calculation process. Perform check in manual mode, and if there are some problems in color deviation, distortion, etc., correct them. When ececuted with this menu selected, NTSC 60 Hz screen is modified again, so care will be necessary.
3	ADJUST NTSC 60 Hz	Allows manual adjustment for NTSC 60 Hz screen. Select this mode when performing adjustment for color matching and correction of distortion for NTSC 60 Hz are required. Perform the adjustments according to dimensions specified.

2. KEY FUNCTION OF REMOTE CONTROL UNIT

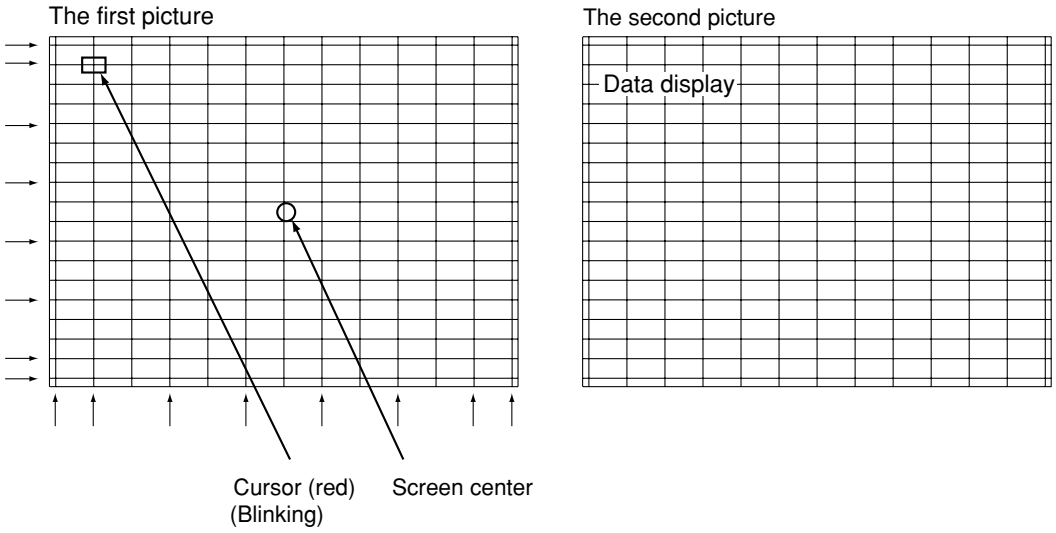


ⓐ key ..... Red test pattern ON/OFF
ⓑ key ..... Green test pattern ON/OFF
ⓒ ♪ key ..... Blue test pattern ON/OFF
ⓓ key ..... Mode picture change over
ⓔ 6 key ..... Cursor shift / data change mode change over
ⓕ 0 key ..... Cursor down / adjusting point down
ⓖ 2 key ..... Cursor up / adjusting point up
ⓗ 7 key ..... Cursor right / adjusting point right
ⓘ 5 key ..... Cursor left / adjusting point left
ⓙ 3 key ..... Cursor color change
ⓚ F key ..... Push this key and ♪ key to enter the convergence menu
Ⓛ key ..... Push this key twice and the set console menu key to enter the service mode.
ⓜ ▲ key ..... Up key on convergence menu.
ⓝ ▼ key ..... Down key on convergence menu.
ⓞ + key ..... Execution key on convergence menu or escape key on manual adjustment picture.

Fig. 2

3. Picture

a) 50 Hz mode (PAL) . . . . Correcting point: Horizontal 8 × Vertical 8 (Arrow marks denote correcting point)



The first picture

Crosshatch pattern. Pattern colors are three color display. Cursor is blinking in red. When changed, condition is last memory state.

Cursor is ..... Data change mode in lighting,
Cursor shifting mode in blinking.
Cursor color Red: Yellow
Green: Green
Blue: Blue

Display color shows the color that data change is possible.

The second picture

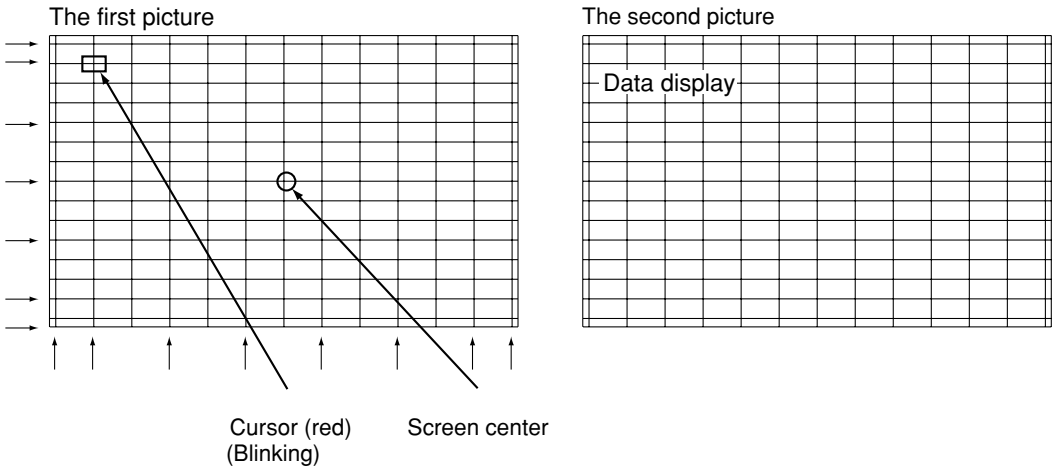
When entering from the first picture to the second picture, correcting wave of convergence is muted for one second.
During this period, the changed data is transferred from RAM Q701 to E2PROM Q711, and saved.

The second picture is indicated with data on top left of the first picture, therefore, convergence cannot be adjusted by this picture.

Caution:

- Receive suitable signal for adjustment. Centering of green picture can be done in 50 Hz mode (PAL).
- Centering of 60 Hz mode (NTSC) can be adjusted by convergence adjustment. Besides, decide the center by cross pattern of static convergence in menu, and adjust convergence from center to circumference.

b) 60 Hz mode (NTSC) . . . . Correcting point: Horizontal 8 × Vertical 7 (Arrow marks denote correcting point)



The first picture

Crosshatch pattern. Pattern colors are three color display. Cursor is blinking in red. When changed, condition is last memory state.

Cursor is ..... Data change mode in lighting,
Cursor shifting mode in blinking.
Cursor color Red: Yellow
Green: Green
Blue: Blue

Display color shows the color that data change is possible.

The second picture

When entering from the first picture to the second picture, correcting wave of convergence is muted for one second.

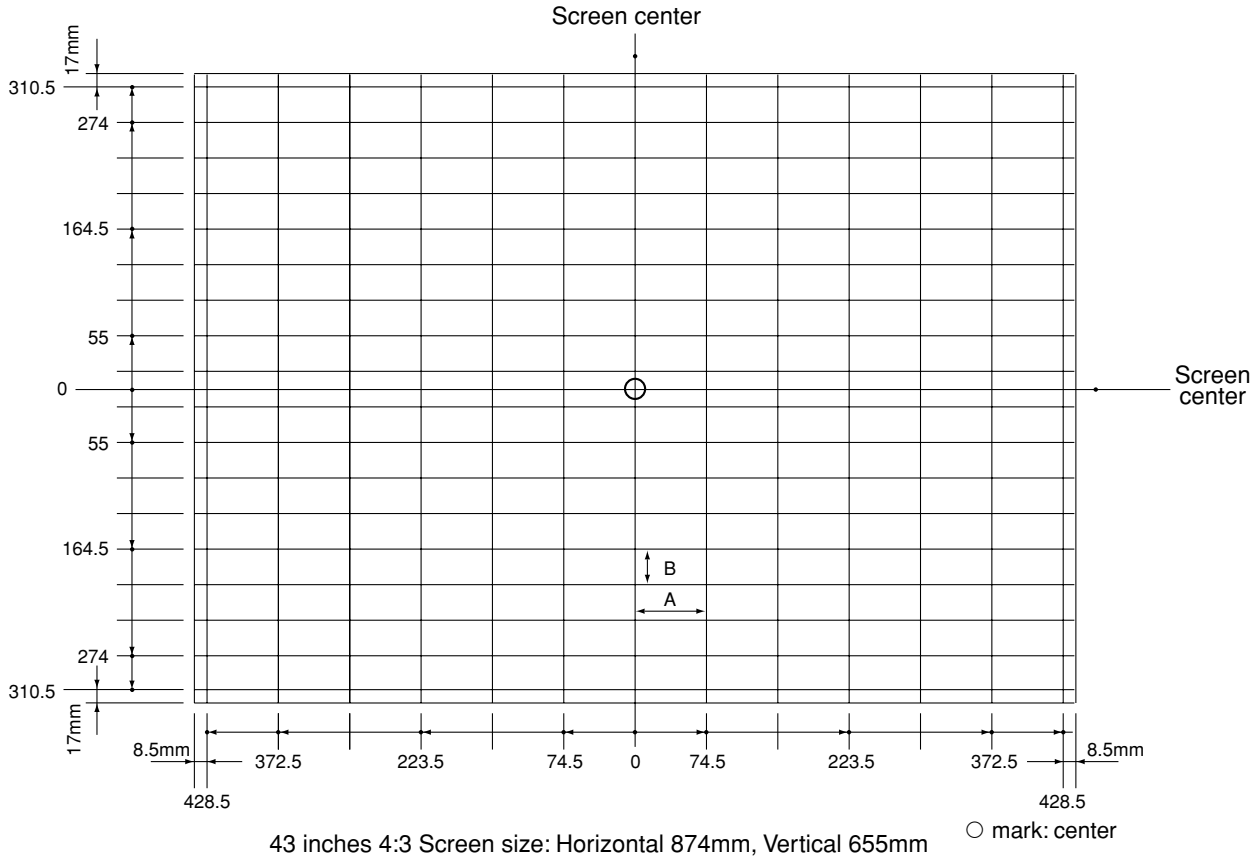
During this period, the changed data is transferred from RAM Q701 to E^2PROM Q711, and saved.
The second picture is indicated with data on top left of the first picture, therefore, convergence cannot be adjusted by this picture.

Caution:

- Receive suitable signal for adjustment. Decide the center by cross pattern of static convergence in menu, and adjust convergence from center to circumference.

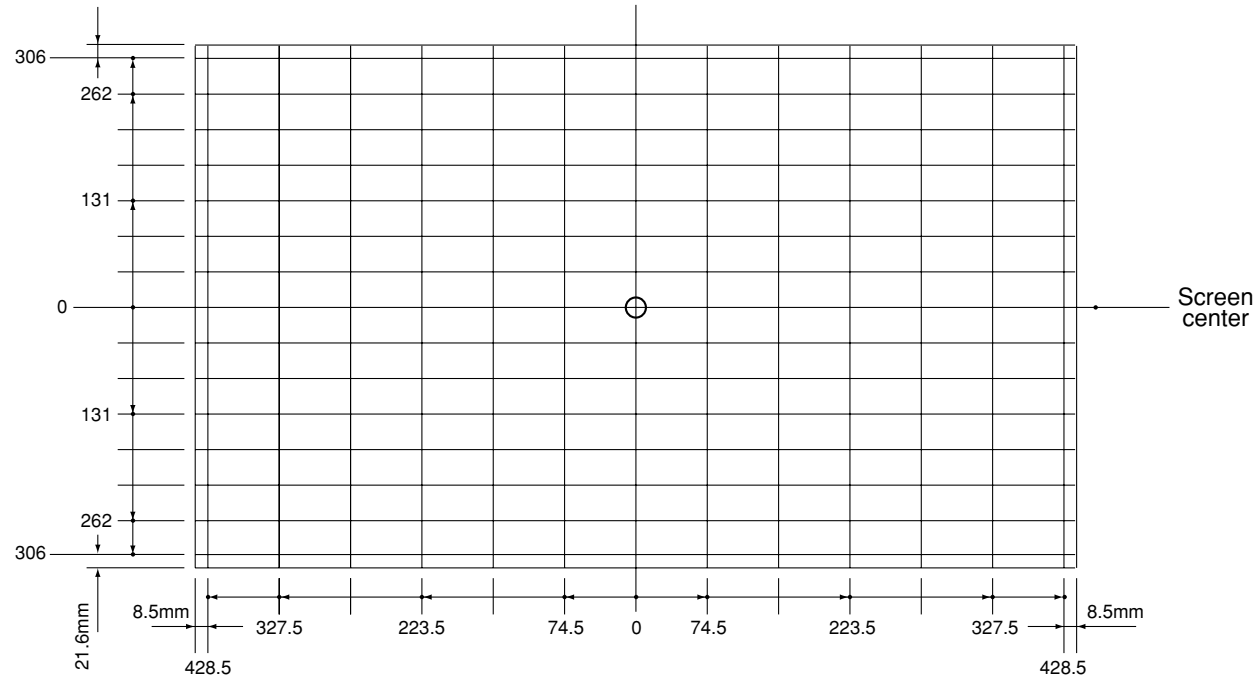
4. ADJUSTING PICTURE DIMENSION (GREEN PICTURE)

1.50 Hz mode (PAL)



43 inches 4:3 Screen size: Horizontal 874mm, Vertical 655mm
Dimension A: 74.5mm (H span), Dimension B: 36.5mm (V span)

2. 60Hz mode (NTSC)



43 inches 4:3 Screen size: Horizontal 874mm, Vertical 655mm
Dimension A: 74.5mm, Dimension B: 43.7mm

SCREEN AND MIRROR ALIGNMENTS

ASSEMBLING AND MOUNTING OF FRONT SCREEN

* Please refer to MECHANICAL DISASSEMBLY page 30.

CLEANING OF LENS AND MIRROR

CAUTION : Do not hold the optical system parts (lens and mirror) with bare hand to avoid finger-prints on the surface of those parts.

HOW TO CLEAN LENS AND MIRROR

1. Be sure to remove sand dust with an air brush, etc.
2. When it is stained slightly, breathe upon it and wipe away with the specified cleaning cloth.
   For other stains than the above, wipe the stains away with the specified cloth into which a cleaning liquid has been soaked.

Cleaning liquid ..... **LENS LUSTER** (Manufactured by Edmund Scientific Co.), etc.

HOW TO CLEAN SCREEN

When cleaning the screen, use a soft cloth so as not to damage the screen.

1. Wipe the stain away with a diluted neutral detergent soaked cloth.
2. Wipe the detergent away with a water soaked cloth.
3. Wipe the screen with a dry cloth to remove moisture on the screen.

Note : Absolutely do not use alcohol, benzine, thinner, etc. for cleaning in order not to wipe away the black print on the surface.

CIRCUIT CHECKS

HIGH VOLTAGE CHECK

CAUTION: There is no HIGH VOLTAGE ADJUSTMENT on this chassis. Checking should be done following the steps below.

1. Connect an accurate high voltage meter to the anode of the picture tube.
2. Turn on the receiver. Set the BRIGHTNESS and CONTRAST to minimum (zero beam current).
3. High voltage must be measured below (B) kV.

   Refer to table-1 for high voltage (B).
   (See SETTING & ADJUSTING DATA on page 24)
4. Vary the BRIGHTNESS to both extremes to be sure the high voltage does not exceed the limit under any conditions.

CAUTION:

When the following parts fail, check the High Voltage after replacing.

Location No.	Name	Name
T461	Flyback Trans.	TFB3087AD
C440	Capacitor	2000pF, ±3%
C443	Capacitor	4700pF, ±3%
C444	Capacitor	8200pF, ±3%
C467	Capacitor	12000pF, ±3%
C468	Capacitor	12000pF, ±3%

ANODE VOLTAGE MEASURING METHOD

CAUTION: Take extra precaution when measuring this high voltage. High voltages are also present in surrounding circuit boards (CRT DRIVE assembly, DEFLECTION assembly, and POWER SUPPLY assembly).

1. Disconnect the FBT anode cable as outlined below. Measure high voltage at the point where the cable enters the FBT.
2. Holding the rubber cover firmly, turn it counterclockwise and check that the lock has been disengaged. (See Fig. b on page 8.)
3. Determine the extent of the rubber cover before disconnecting the cable.
4. Pull straight up the anode cable to disconnect.
5. When reconnecting the cable, proceed in the reverse order.
   After reconnecting, tug on the cable to check that it is secure.

CHAPTER 2 SPECIFIC INFORMATIONS

SETTING & ADJUSTING DATA

【 SAFETY INSTRUCTIONS 】

		43"
HIGH VOLTAGE AT ZERO BEAM:	(A)	31.9 kV
MAX HIGH VOLTAGE:	(B)	32.5 kV
AC VOLTAGE	(C)	110~240 V

Table-1

【 SERVICE MODE 】

ADJUSTING ITEMS AND DATAS IN THE SERVICE MODE:

Item	Adjustment	Reference data
RCUT	R CUTOFF (B/W)	40H
GCUT	G CUTOFF (B/W)	40H
BCUT	B CUTOFF (B/W)	40H
RDRV	R DRIVE	40H
BDRV	B DRIVE	40H
CNTX	SUB CONTRAST MAX	7FH
BRTC	SUB BRIGHT CEN	80H
COLC	SUB COLOR CEN NTSC	45H
TNTC	SUB TINT CEN	20H
COLP	SUB COLOR CEN PAL	01H
COLS	SUB COLOR CEN SECAM	45H
COLD	SUB COLOR CEN DVD	45H
SCNT	SUB CONTRAST	08H
SRY	SECAM R-Y	07H

Item	Adjustment	Reference data
SBY	SECAM B-Y	04H
HPOS	50Hz H-POSITION	16H
VPOS	V-POSITION	60H
HIT	HEIGHT	4FH
VLIN	V-LINEARITY	10H
VSC	V-S CORRECTION	10H
VPS	V-SHIFT	18H
VCP	V-COMPENSATION	0AH
WID	PICTURE WIDTH	26H
PARA	E-W PARABOLA	22H
CNR	E-W CORNER	0AH
TRAP	TRAPEZIUM	10H
HCP	H-COMPENSATION	00H
VFC	V-F CORRECTION	00H

Table-2

【 DESIGN MODE 】

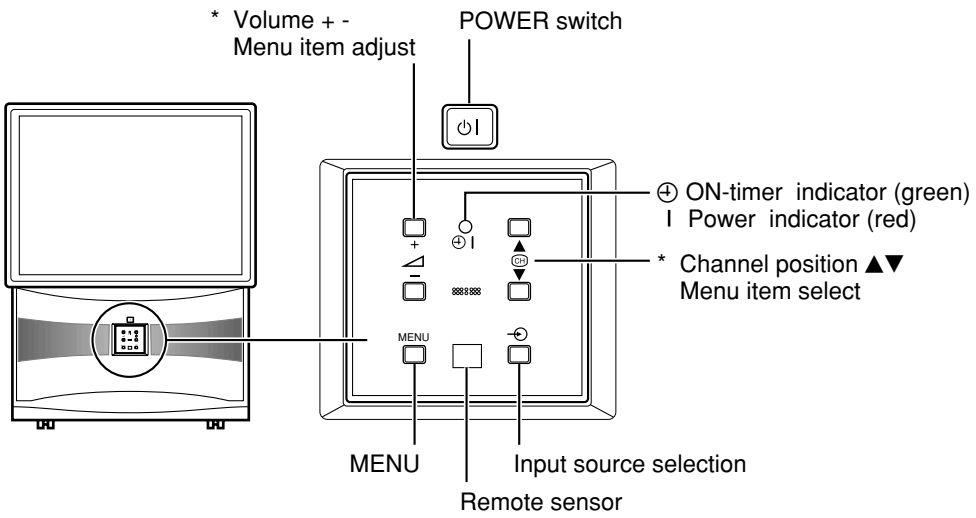
ADJUSTING ITEMS AND DATAS IN THE DESIGN MODE:

Item	Name of adjustment	Preset Data	43"	Remarks
OPT0	OPTION 0	00H	80H	
OPT1	OPTION 1	48H	←	
OPT2	OPTION 2	04H	←	
OPT3	OPTION 3	06H	←	
OPT4	OPTION 4	21H	←	
OPT5	OPTION 5	02H	←	

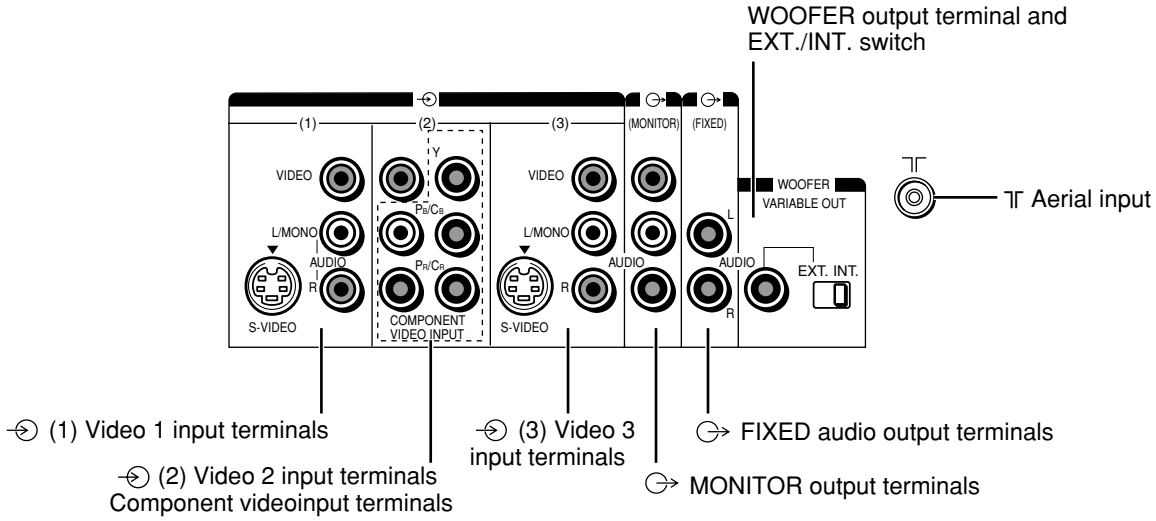
Table-3

LOCATION OF CONTROLS (Representative: 43A9UE)

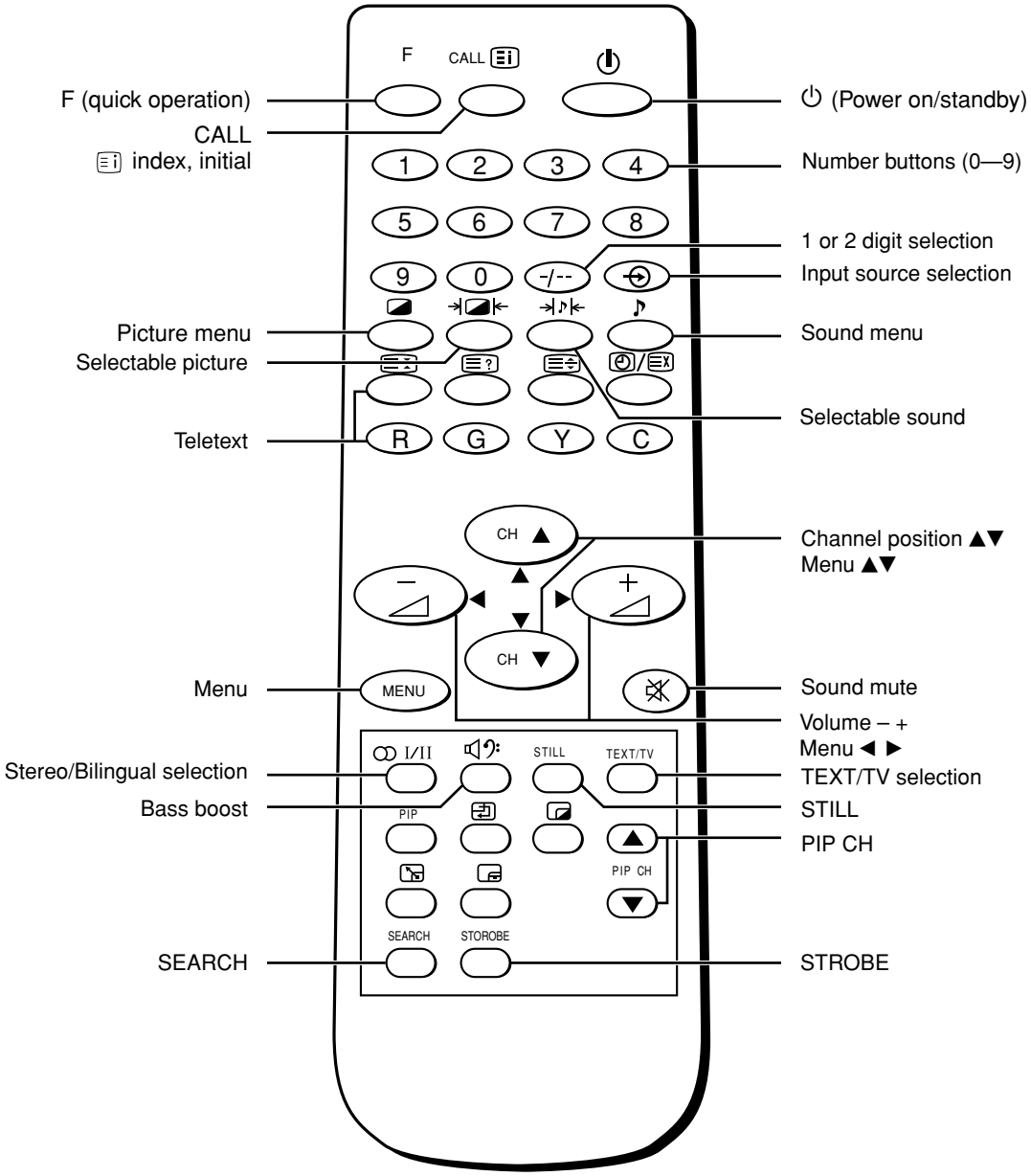
Front



Back



Remote Controller



PROGRAMMING CHANNEL MEMORY

- First, use the ASM (Automatic Search Memory) function to preset all the active channels in your area automatically.
  Then, arrange the preset channels with the MANUAL SEARCH (SEARCH or >>>), MFT (Manual Fine Tuning) and SKIP functions so that you can tune into only desired channels.
- This section shows how to tune in channels using mainly the Remote Controller. You can also perform the system select, ASM, MANUAL SEARCH (SEARCH or >>>), MFT and SKIP operations using the buttons on the TV set.

To preset channels (ASM)

ASM (Automatic Search Memory)

1 Select the first position number you want the ASM to start presetting from with the **CH ▼/▲** buttons or the direct select buttons.

2 Press the **MENU** button repeatedly to call up the SET UP menu on the screen.

3 Confirm that "COLOR" is set to "AUTO" and "SOUND" is set to proper system.
If not, press the **MENU ▼/▲** (or CH ▼/▲) buttons to move the cursor (►) to "COLOR" or "SOUND" then press the **MENU** –/+ (or◿ –/+) buttons to select the proper systems.

4 Press the **MENU ▼/▲** (or CH ▼/▲) buttons to move the cursor (►) to "ASM".

5 Press the **MENU** + (or◿ +) button to start the ASM.
All active channels will be preset automatically.
When presetting is complete, the initial position number will reappear.

After presetting
Check the preset channels by pressing the **CH ▼/▲** buttons.

- If the picture or sound of a certain channel is not good, re-tune the channel using the ASM, MANUAL SEARCH (SEARCH or >>>) or MFT function.
- If the colour of a certain channel is abnormal, the automatic colour system selection (AUTO) may have malfunctioned, or sound system selection is wrong. In such a case, select another colour and/or sound system.

MFT (Manual Fine Tuning)

The adjustments below are not necessary under normal conditions. However, in areas of inferior broadcast conditions where adjustment is necessary for a better picutre, adjust the tuning with the MFT (Manual Fine Tuning).

1 Select the channel you want to fine-tune with the **CH ▼/▲** buttons or direct select buttons.

2 Press the **MENU** button repeatedly to call up the SET UP menu on the screen.

3 Press the **MENU ▼/▲** (or CH ▼/▲) buttons to move the cursor (►) to "MFT".

4 Press the **MENU** –/+ (or◿ –/+) buttons until the best possible picture and sound are obtained.
[–]DOWN or [+]UP is highlighted while tuning in.

- Use the MANUAL SEARCH (SEARCH or >>>) function if desired channels cannot be preset with the ASM or if you would like to preset channels to specific position numbers one by one.
- It is convenient to set the channel numbers to the same position numbers using MANUAL SEARCH (SEARCH or >>>) and SKIP functions.

To preset channels (Manual search) and skip unnecessary position numbers

Manual search (SEARCH or >>>)

1 Select a desired position number with the **CH ▼/▲** or direct select buttons.

2 Press the **MENU** button repeatedly to call up the SET UP menu on the screen.

3 Press the **MENU ▼/▲** (or CH ▼/▲) buttons to move the cursor (▶) to " SEARCH or >>> ".

4 Press the **MENU** –/+ (or◿ –/+)buttons to start searching. The **MENU** – (or◿ –) button searches for lower-numbered channels; the **MENU** + (or◿ +) button for higher-numbered channels.
Repeat this process until you can get the desired channel.

5 When the desired channel is shown, press the **MENU ▼/▲** buttons (or CH ▼/▲) to move the cursor (▶) to " ⌖".

6 Press the **MENU** + (or◿ +) button to store the channel at the current position.

7 When you desire to store another channel at another position, move the cursor (▶) to "POSITION" with the **MENU ▼/▲** (or CH ▼/▲)buttons and select a desired position number with the **MENU** –/+ (or◿ –/+)buttons. Then, press the **MENU ▼/▲** (or CH ▼/▲) buttons to move the cursor (▶) to " SEARCH or >>> " and repeat the steps 4 to 7. Or, repeat the steps 1 to 7 after the display disappears.

To skip a position number

After presetting the channels, you may skip unnecessary position numbers so that only the channels you want to watch are selected.

1 Select the position number to be skipped with the **CH ▼/▲** buttons or direct select buttons.

2 Press the **MENU** button repeatedly to call up the SET UP menu on the screen.

3 Press the **MENU ▼/▲** (or CH ▼/▲) buttons to move the cursor (▶) to "SKIP".

4 Press the **MENU** –/+ (or◿ –/+) buttons to select "SKIP ON".

5 Press the **CALL** button to turn off the SET UP menu display.
Select the position number to be skipped with the direct select buttons. The * mark appears to the left of the position number.
The position number will then be skipped when you select channels with the **CH ▼/▲** buttons.

To restore a skipped position number

1 Select the position number you want to restore with the direct select buttons.

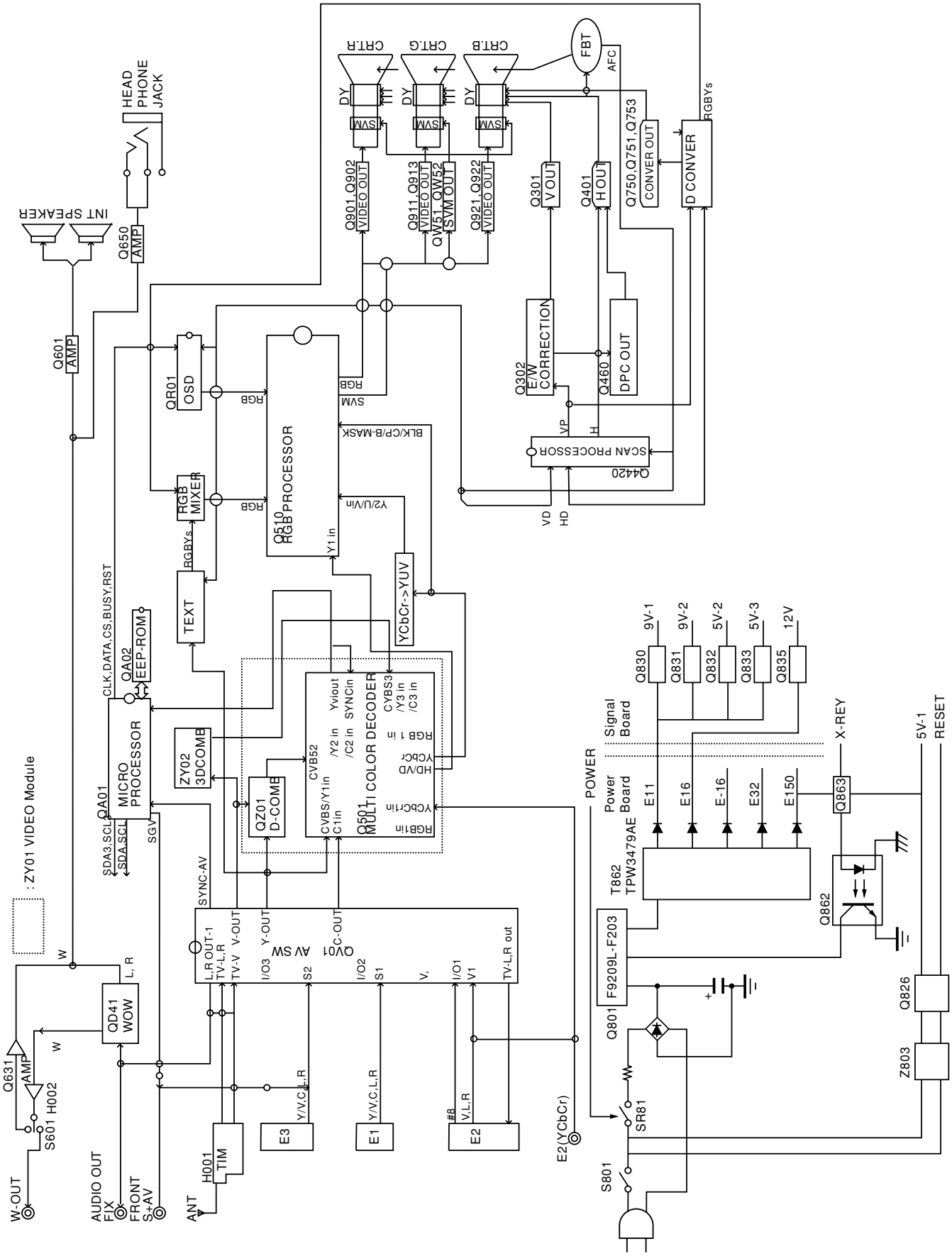
2 Press the **MENU** button to call up the SET UP menu display and press the **MENU ▼/▲** (or CH ▼/▲) buttons to move the cursor (▶) to "SKIP".

3 Press the **MENU** –/+ (or◿ –/+) buttons to select "SKIP OFF".

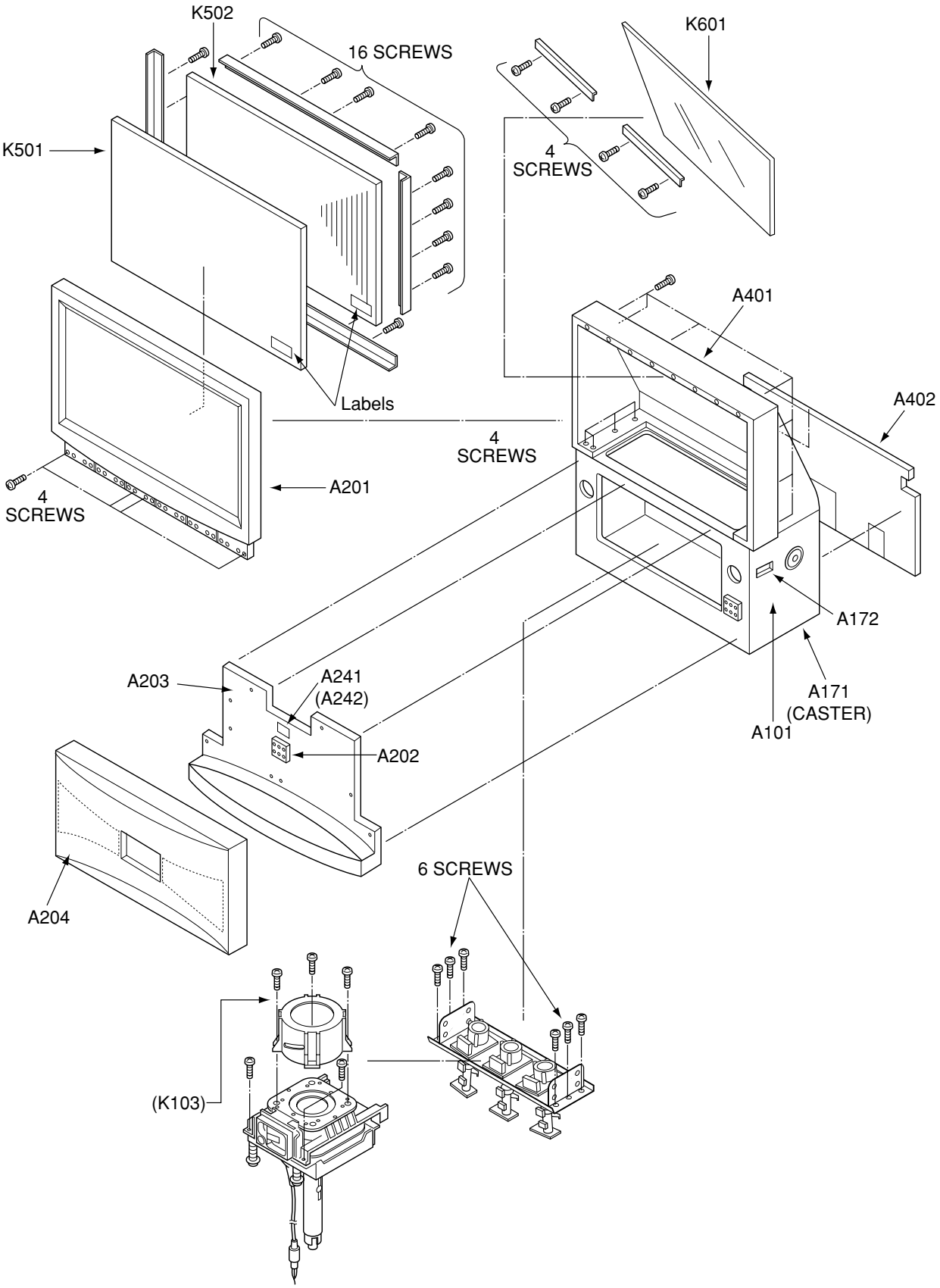
*Please refer to owner's manual in detail.

SPECIFIC INFORMATIONS

CIRCUIT BLOCK DIAGRAM



MECHANICAL DISASSEMBLY



CHASSIS AND CABINET REPLACEMENT PARTS LIST

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF THIS MANUAL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE. Do not degrade the safety of the receiver through improper servicing.

NOTICE:
- *The part number must be used when ordering parts, in order to assist in processing, be sure to include the Model number and Description.*
- *The PC board assembly with ∗ mark is no longer available after the end of the production.*

ABBREVIATIONS:

Capacitors	CD	:	Ceramic Disk	PF	:	Plastic Film	EL	: Electrolytic
Resistors	CF	:	Carbon Film	CC	:	Carbon Composition	MF	: Metal Film
	OMF	:	Oxide Metal Film	VR	:	Variable Resistor	FR	: Fusible Resistor

(All CD and PF capacitors are ±5%, 50V and all resistors, ±5%, 1/6W unless otherwise noted.)

Models :43A9UE, 43A9UA

Location No.	Parts No.	Description
CAPACITORS		
C101	24796479	ELECTROLYTIC, 35V 4.7UF M
C102	24793221	ELECTROLYTIC, 10V 220UF M
C105	24109102	CERAMIC CHIP, 50V B 1000PF K
C106	24797100	ELECTROLYTIC, 50V 10UF M
C107	24794221	ELECTROIYTIC, 16V 220UF M
C109	24109103	CERAMIC CHIP, 50V B 10000PF K
C115	24109103	CERAMIC CHIP, 50V B 10000PF K
C170	24567104	PLASTIC FILM, 50V 0.1UF J
C190	24109103	CERAMIC CHIP, 50V B 10000PF K
C201	24793471	ELECTROLYTIC, 10V 470UF M
C202	24109103	CERAMIC CHIP, 50V B 10000PF K
C205	24797229	ELECTROLYTIC, 50V 2.2UF M
C206	24794220	ELECTROLYTIC, 16V 22UF M
C219	24105100	CERAMIC CHIP, 50V CH 10PF D
C220	24105100	CERAMIC CHIP, 50V CH 10PF D
C221	24105100	CERAMIC CHIP, 50V CH 10PF D
C301	24092730	CERAMIC CHIP, 16V B 0.1UF K
C302	24092753	CERAMIC CHIP, 10V B 220NF K
C303	24503049	PLASTIC FILM, 63V 0.47UF J
C304	24092730	CERAMIC CHIP, 16V B 0.1UF K
C305	24092753	CERAMIC CHIP, 10V B 220NF K
C306	24105102	CERAMIC CHIP, 25V CH 1000PF J
C307	24567105	PLASTIC FILM, 50V 1 UF J
C308	24092733	CERAMIC CHIP, 50V B 22000PF K
C309	24105102	CERAMIC CHIP, 25V CH 1000PF J
C310	24669101	ELECTROLYTIC, 50V 100UF M 3A
C311	24109103	CERAMIC CHIP, 50V B 10000PF K
C312	24105102	CERAMIC CHIP, 25V CH 1000PF J
C313	24666101	ELECTROLYTIC, 16V 100UF M 3A
C314	24092730	CERAMIC CHIP, 16V B 0.1UF K
C315	24666102	ELECTROLYTIC, 16V 1000UF M 3A
C316	24666102	ELECTROLYTIC, 16V 1000UF M 3A
C317	24109222	CERAMIC CHIP, 50V B 2200PF K
C318	24109222	CERAMIC CHIP, 50V B 2200PF K
C319	24503049	PLASTIC FILM, 63V 0.47UF J
C320	24669101	ELECTROLYTIC, 50V 100UF M 3A
C321	24669101	ELECTROLYTIC, 50V 100UF M 3A
C322	24109473	CERAMIC CHIP, 25V B 47000PFK

Location No.	Parts No.	Description
C323	24109473	CERAMIC CHIP, 25V B 47000PFK
C324	24669101	ELECTROLYTIC, 50V 100UF M 3A
C325	24503045	PLASTIC FILM, 63V 0.22UF J
C326	24092730	CERAMIC CHIP, 16V B 0.1UF K
C327	24092753	CERAMIC CHIP, 10V B 220NF K
C328	24082260	PLASTIC FILM, 100V 4700PF J
C329	24669100	ELECTROLYTIC, 50V 10UF M 3A
C330	24085946	ELEC. NONPOLAR, 16V 10UF M 3A
C332	24669221	ELECTROLYTIC CE04Q 50V 220UF M 3A
C333	24693473	PLASTIC FILM, 100V 0.047UF J
C334	24109471	CERAMIC CHIP, 50V B 470PF K
C335	24092730	CERAMIC CHIP, 16V B 0.1UF K
C338	24666330	ELECTROLYTIC, 16V 33UF M 3A
C339	24667101	ELECTROLYTIC, 25V 100UF M 3A
C340	24666330	ELECTROLYTIC, 16V 33UF M 3A
C361	24109473	CERAMIC CHIP, 25V B 47000PFK
C362	24109473	CERAMIC CHIP, 25V B 47000PFK
C370	24669229	ELECTROLYTIC, 50V 2.2UF M 3A
C371	24092730	CERAMIC CHIP, 16V B 0.1UF K
C401	24214332	CERAMIC DISC, 500V B 3300PF K
C402	24214391	CERAMIC DISC, 500V B 390PF K
C403	24667220	ELECTROLYTIC, 25V 22UF M 3A
C405	24503042	PLASTIC FILM, 63V 0.12UF J
C412	24829823	PLASTIC FILM, 400V 82000PF J
C415	24092478	CERAMIC DISK, 2KV 470PF K
C416	24676220	ELECTROLYTIC, 100V 22UF M 3A
C417	24095716	PLASTIC FILM, 250V 1.5UF K
C423	24082649	PLASTIC FILM, 400V 0.33UF J
C425	24082647	PLASTIC FILM, 400V 0.27UF J
C426	24211222	CERAMIC DISC, 2KV B 2200PFK
C432	24567333	PLASTIC FILM, 50V 33000PF J
C440	24082938	PLASTIC FILM, 1500VH 2200PF H
C443	24082946	PLASTIC FILM, 1500VH 4700PF H
C444	24082961	PLASTIC FILM, 1500VH 8200PF H
C445	24828473	PLASTIC FILM, 200V 47000PF J
C446	24679330	ELECTROLYTIC, 250V 33UF M 3A
C448	24640908	ELECTROLYTIC, 160V 33UF M 3A LI
C449	24214221	CERAMIC DISC, 500V B 220PF K
C460	24679330	ELECTROLYTIC, 250V 33UF M 3A

Location No.	Parts No.	Description
C464	24095900	PLASTIC FILM, 100V 3.3UF K
C465	24109103	CERAMIC CHIP, 50V B 10000PF K
C466	24109103	CERAMIC CHIP, 50V B 10000PF K
C467	24820123	PLASTIC FILM, 630V 0.012UF J
C468	24820123	PLASTIC FILM, 630V 0.012UF J
C470	24095900	PLASTIC FILM, 100V 3.3UF K
C478	24503049	PLASTIC FILM, 63V 0.47UF J
C481	24666101	ELECTROLYTIC, 16V 100UF M 3A
C482	24092733	CERAMIC CHIP, 50V B 22000PF K
C483	24092733	CERAMIC CHIP, 50V B 22000PF K
C484	24109102	CERAMIC CHIP, 50V B 1000PF K
C510	24100104	CERAMIC CHIP, 25V F 100000PF Z
C513	24109103	CERAMIC CHIP, 50V B 10000PF K
C514	24794101	ELECTROLYTIC, 16V 100UF M
C516	24100104	CERAMIC CHIP, 25V F 100000PF Z
C517	24100104	CERAMIC CHIP, 25V F 100000PF Z
C518	24100104	CERAMIC CHIP, 25V F 100000PF Z
C520	24567334	PLASTIC FILM, 50V 0.33UF J
C530	24797010	ELECTROLYTIC, 50V 1UF M
C531	24100104	CERAMIC CHIP, 25V F 100000PF Z
C532	24100104	CERAMIC CHIP, 25V F 100000PF Z
C533	24100104	CERAMIC CHIP, 25V F 100000PF Z
C534	24100104	CERAMIC CHIP, 25V F 100000PF Z
C535	24100104	CERAMIC CHIP, 25V F 100000PF Z
C536	24100104	CERAMIC CHIP, 25V F 100000PF Z
C537	24100104	CERAMIC CHIP, 25V F 100000PF Z
C538	24797010	ELECTROLYTIC, 50V 1UF M
C540	24100104	CERAMIC CHIP, 25V F 100000PF Z
C541	24100104	CERAMIC CHIP, 25V F 100000PF Z
C542	24100104	CERAMIC CHIP, 25V F 100000PF Z
C547	24109103	CERAMIC CHIP, 50V B 10000PF K
C548	24794101	ELECTROLYTIC, 16V 100UF M
C563	24797010	ELECTROLYTIC, 50V 1UF M
C564	24797479	ELECTROLYTIC, 50V 4.7UF M
C586	24206010	ELECTROLYTIC, 50V 1.0UF M 7L 3A
C587	24109222	CERAMIC CHIP, 50V B 2200PF K
C588	24105561	CERAMIC CHIP, 50V CH 560PF J
C589	24109332	CERAMIC CHIP, 50V B 3300PF K
C601	24797229	ELECTROLYTIC, 50V 2.2UF M
C602	24797229	ELECTROLYTIC, 50V 2.2UF M
C603	24436271	CERAMIC DISC, 50V SL 270PF J
C604	24436271	CERAMIC DISC, 50V SL 270PF J
C605	24073086	ELECTROLYTIC, 50V 10UF M 3A
C606	24073086	ELECTROLYTIC, 50V 10UF M 3A
C607	24073052	ELECTROLYTIC, 25V 47UF M 3A
C608	24073052	ELECTROLYTIC, 25V 47UF M 3A
C609	24073068	ELECTROLYTIC, 35V 100UF M 3A
C610	24073086	ELECTROLYTIC, 50V 10UF M 3A
C612	24073094	ELECTROLYTIC, 50V 1000UF M 3A
C613	24503042	PLASTIC FILM, 63V 0.12UF J
C614	24503042	PLASTIC FILM, 63V 0.12UF J
C615	24073095	ELECTROLYTIC, 50V 2200UF M 3A
C616	24073095	ELECTROLYTIC, 50V 2200UF M 3A
C617	24073087	ELECTROLYTIC, 50V 22UF M 3A
C618	24797478	ELECTROLYTIC, 50V 0.47UF M
C619	24794471	ELECTROLYTIC, 16V 470UF M
C621	24797100	ELECTROLYTIC, 50V 10UF M
C622	24591103	PLASTIC FILM, 50V 0.01MF J
C624	24797220	ELECTROLYTIC, 50V 22UF M
C628	24797479	ELECTROLYTIC, 50V 4.7UF M
C629	24591152	PLASTIC FILM, 50V 1500PF J
C631	24797220	ELECTROLYTIC, 50V 22UF M
C633	24797220	ELECTROLYTIC, 50V 22UF M
C634	24765101	ELECTROLYITC, 35V 100UF M
C635	24591273	PLASTIC FILM, 50V 0.027UF J

Location No.	Parts No.	Description
C636	24591273	PLASTIC FILM, 50V 0.027UF J
C651	24797479	ELECTROLYTIC, 50V 4.7UF M
C652	24797479	ELECTROLYTIC, 50V 4.7UF M
C653	24105101	CERAMIC CHIP, 50V CH 100PF J
C654	24105101	CERAMIC CHIP, 50V CH 100PF J
C655	24797479	ELECTROLYTIC, 50V 4.7UF M
C656	24797479	ELECTROLYTIC, 50V 4.7UF M
C657	24797479	ELECTROLYTIC, 50V 4.7UF M
C658	24797479	ELECTROLYTIC, 50V 4.7UF M
C659	24794101	ELECTROLYTIC, 16V 100UF M
C660	24794101	ELECTROLYTIC, 16V 100UF M
C661	24794101	ELECTROLYTIC, 16V 100UF M
C662	24797220	ELECTROLYTIC, 50V 22UF M
C663	24794471	ELECTROLYTIC, 16V 470UF M
C690	24797229	ELECTROLYTIC, 50V 2.2UF M
C701	24105471	CERAMIC CHIP, 50V CH 470PF J
C702	24591222	PLASTIC FILM, 50V 2200PF J
C703	24591822	PLASTIC FILM, 50V 8200PF J
C704	24105150	CERAMIC CHIP, 50V CH 15PF J
C705	24206479	ELECTROLYTIC, 50V 4.7UF M 7L 3A
C707	24797470	ELECTROLYTIC, 50V 47UF M
C708	24591272	PLASTIC FILM, 50V 2700PF J
C711	24105471	CERAMIC CHIP, 50V CH 470PF J
C712	24591222	PLASTIC FILM, 50V 2200PF J
C712	24797470	ELECTROLYTIC, 50V 47UF M
C713	24591822	PLASTIC FILM, 50V 8200PF J
C713	24790470	ELECTROLYTIC, 160V 47UF M
C714	24105150	CERAMIC CHIP, 50V CH 15PF J
C715	24214472	CERAMIC DISK CK45 B 500V 4700PF K
C717	24109103	CERAMIC CHIP, 50V B 10000PF K
C717	24214472	CERAMIC DISK CK45 B 500V 4700PF K
C718	24591272	PLASTIC FILM, 50V 2700PF J
C718	24666470	ELECTORLYTIC, 16V 47UF M 3A
C719	24435560	CERAMIC DISC, 500V SL 56PF J
C720	24790220	ELECTROLYTIC, 160V 22UF M
C721	24105471	CERAMIC CHIP, 50V CH 470PF J
C721	24666470	ELECTORLYTIC, 16V 47UF M 3A
C722	24436820	CERAMIC DISC, 50V SL 82PF J
C722	24591222	PLASTIC FILM, 50V 2200PF J
C723	24591822	PLASTIC FILM, 50V 8200PF J
C724	24105150	CERAMIC CHIP, 50V CH 15PF J
C726	24212102	CERAMIC DISC, 50V B 1000PF K
C728	24591272	PLASTIC FILM, 50V 2700PF J
C731	24105471	CERAMIC CHIP, 50V CH 470PF J
C732	24591222	PLASTIC FILM, 50V 2200PF J
C733	24591822	PLASTIC FILM, 50V 8200PF J
C734	24105150	CERAMIC CHIP, 50V CH 15PF J
C737	24109103	CERAMIC CHIP, 50V B 10000PF K
C738	24591272	PLASTIC FILM, 50V 2700PF J
C741	24105471	CERAMIC CHIP, 50V CH 470PF J
C742	24591222	PLASTIC FILM, 50V 2200PF J
C743	24591822	PLASTIC FILM, 50V 8200PF J
C744	24105150	CERAMIC CHIP, 50V CH 15PF J
C748	24591272	PLASTIC FILM, 50V 2700PF J
C751	24105471	CERAMIC CHIP, 50V CH 470PF J
C752	24591222	PLASTIC FILM, 50V 2200PF J
C753	24591822	PLASTIC FILM, 50V 8200PF J
C754	24105150	CERAMIC CHIP, 50V CH 15PF J
C757	24109103	CERAMIC CHIP, 50V B 10000PF K
C758	24591272	PLASTIC FILM, 50V 2700PF J
C760	24797470	ELECTROLYTIC, 50V 47UF M
C761	24212102	CERAMIC DISC, 50V B 1000PF K
C761	24667331	ELECTROLYTIC, 25V 330UF M 3A
C762	24797470	ELECTROLYTIC, 50V 47UF M
C765	24109103	CERAMIC CHIP, 50V B 10000PF K

Location No.	Parts No.	Description
C765	24214472	CERAMIC DISK CK45 B 500V 4700PF K
C766	24214472	CERAMIC DISK CK45 B 500V 4700PF K
C766	24669331	ELECTROLYTIC, 50V 330UF M 3A
C767	24567104	PLASTIC FILM, 50V 0.1UF J
C767	24790470	ELECTROLYTIC, 160V 47UF M
C768	24567104	PLASTIC FILM, 50V 0.1UF J
C768	24666470	ELECTORLYTIC, 16V 47UF M 3A
C769	24567104	PLASTIC FILM, 50V 0.1UF J
C769	24666470	ELECTORLYTIC, 16V 47UF M 3A
C770	24435560	CERAMIC DISC, 500V SL 56PF J
C771	24790220	ELECTROLYTIC, 160V 22UF M
C780	24797470	ELECTROLYTIC, 50V 47UF M
C781	24212102	CERAMIC DISC, 50V B 1000PF K
C782	24797470	ELECTROLYTIC, 50V 47UF M
C784	24214472	CERAMIC DISK CK45 B 500V 4700PF K
C786	24214472	CERAMIC DISK CK45 B 500V 4700PF K
C787	24790470	ELECTROLYTIC, 160V 47UF M
C788	24666470	ELECTORLYTIC, 16V 47UF M 3A
C789	24666470	ELECTORLYTIC, 16V 47UF M 3A
C790	24435560	CERAMIC DISC, 500V SL 56PF J
C791	24790220	ELECTROLYTIC, 160V 22UF M
⚠ C801	24503002	MT PLA AC275V 0.22UF M
C802	24092557	CERAMIC DISC, AC250V E 2200PF M
C803	24092557	CERAMIC DISC, AC250V E 2200PF M
⚠ C804	24092570	CERAMIC DISC CK45 AC250V 3300PF M
C805	24503002	MT PLA AC275V 0.22UF M
⚠ C807	24092557	CERAMIC DISC, AC250V E 2200PF M
⚠ C808	24503002	MT PLA AC275V 0.22UF M
C811	24678478	ELECTROLYTIC, 200V 0.47UF M 3A
C812	24214103	CERAMIC DISC, 500V B 10000PF K
C814	24678229	ELECTROLYTIC, 200V 2.2UF M 3A
C815	24503049	PLASTIC FILM, 63V 0.47UF J
C816	24617820	ELECTROLYTIC, 50V 100UF M 11L 3D
C817	24503045	PLASTIC FILM, 63V 0.22UF J
C819	24214102	CERAMIC DISC, 500V B 1000PF K
C820	24503045	PLASTIC FILM, 63V 0.22UF J
C821	24092480	CERAMIC DISK, 2KV 680PF K
C822	24092481	CERAMIC DISK, 2KV 820PF K
C823	24092478	CERAMIC DISK, 2KV 470PF K
C825	24591472	PLASTIC FILM, 50V 4700PF J
C826	24092474	CERAMIC DISC, 2KV B 220PF K
C828	24082890	PLASTIC FILM, 800V 82000PF J
C830	24503053	PLASTIC FILM, 63V 1UF J
C830	24669100	ELECTROLYTIC, 50V 10UF M 3A
C831	24073037	ELECTROLYTIC, 16V 47UF M 3A
C832	24669100	ELECTROLYTIC, 50V 10UF M 3A
C833	24073037	ELECTROLYTIC, 16V 47UF M 3A
C833	24073098	ELECTROLYTIC, 450V 4.7UF M 3A
C834	24073098	ELECTROLYTIC, 450V 4.7UF M 3A
C834	24669100	ELECTROLYTIC, 50V 10UF M 3A
C835	24666470	ELECTORLYTIC, 16V 47UF M 3A
C836	24667101	ELECTROLYTIC, 25V 100UF M 3A
C836	24669100	ELECTROLYTIC, 50V 10UF M 3A
C837	24666331	ELECTROLYTIC, 16V 330UF M 3A
C837	24666470	ELECTORLYTIC, 16V 47UF M 3A
C838	24669100	ELECTROLYTIC, 50V 10UF M 3A
C839	24073015	ELECTROLYTIC, 10V 47UF M 3A
C839	24669220	ELECTROLYTIC, 50V 22UF M 3A
C840	24503041	PLASTIC FILM , 63V 0.1UF J
C840	24503047	PLASTIC FILM, 63V 0.33UF J
C841	24669220	ELECTROLYTIC, 50V 22UF M 3A
C841	24795470	ELECTROLYTIC, 25V 47UF M
C842	24503041	PLASTIC FILM , 63V 0.1UF J
C844	24092281	CERAMIC DISC, AC250V E 4700PF
C845	24092281	CERAMIC DISC, AC250V E 4700PF

Location No.	Parts No.	Description
C846	24073098	ELECTROLYTIC, 450V 4.7UF M 3A
C847	24669479	ELECTROLYTIC, 50V 4.7UF M 3A
C848	24503037	MT PLA CAP 63V 0.047UF J
C849	24082081	PLASTIC FILM, 630V 0.033UF
C850	24086068	ELECTROLYTIC CE692Q 250V 820UF M 3D
C851	24086068	ELECTROLYTIC CE692Q 250V 820UF M 3D
C852	24666100	ELECTROLYTIC, 10V 10UF M 3A
C853	24503041	PLASTIC FILM , 63V 0.1UF J
C860	24668222	ELECTROLYTIC, 35V 2200UF M 3A
C861	24617810	ELECTROLYTIC, 35V 4700UF M
C863	24617810	ELECTROLYTIC, 35V 4700UF M
C865	24212331	CERAMIC DISC, 50V B 330PF K
C869	24086916	ELECTROLYTIC CE692R 160V 330UF M 3D
C870	24667102	ELECTROLYTIC CE04Q 25V 1000UF M 3A
C874	24212102	CERAMIC DISC, 50V B 1000PF K
C875	24667472	ELECTROLYTIC, 25V 4700UF M 3A
C876	24086916	ELECTROLYTIC CE692R 160V 330UF M 3D
C878	24092339	CERAMIC DISC, 2KV 330PF K
C879	24092339	CERAMIC DISC, 2KV 330PF K
C880	24092339	CERAMIC DISC, 2KV 330PF K
C882	24617817	ELECTROLYTIC CE04P 50V 22UF M 11L 3D
C883	24082229	PLASTIC FILM, 250V 0.1MF D
C884	24617816	ELECTROLYTIC, 50V 10UF M 11L 3D
C885	24617813	ELECTROLYTIC CE04P 50V 2.2UF M 11L 3D
C889	24503041	PLASTIC FILM , 63V 0.1UF J
C901	24211102	CERAMIC DISC, 2KV B 1000PF K
C902	24794100	ELECTROLYTIC, 16V 10UF M
C904	24436561	CERAMIC DISC, 50V SL 560PF J
C907	24214101	CERAMIC DISC, 500V B 100PF K
C909	24794470	ELECTORLYTIC, 16V 47UF M
C911	24211102	CERAMIC DISC, 2KV B 1000PF K
C912	24794100	ELECTROLYTIC, 16V 10UF M
C914	24436681	CERAMIC DISC, 50V SL 680PF J
C915	24679330	ELECTROLYTIC, 250V 33UF M 3A
C917	24214101	CERAMIC DISC, 500V B 100PF K
C918	24567104	PLASTIC FILM, 50V 0.1UF J
C919	24794470	ELECTORLYTIC, 16V 47UF M
C921	24211102	CERAMIC DISC, 2KV B 1000PF K
C922	24794100	ELECTROLYTIC, 16V 10UF M
C923	24436391	CERAMIC DISC, 50V SL 390PF J
C926	24214101	CERAMIC DISC, 500V B 100PF K
C927	24567104	PLASTIC FILM, 50V 0.1UF J
C928	24794100	ELECTROLYTIC, 16V 10UF M
C961	24794100	ELECTROLYTIC, 16V 10UF M
C962	24794100	ELECTROLYTIC, 16V 10UF M
C3110	24085958	ELEC. NONPOLAR CE04J 50V 1.0UF M NP
C4401	24794221	ELECTROIYTIC, 16V 220UF M
C4402	24109103	CERAMIC CHIP, 50V B 10000PF K
C4403	24797010	ELECTROLYTIC, 50V 1UF M
C4404	24109103	CERAMIC CHIP, 50V B 10000PF K
C4405	24092730	CERAMIC CHIP, 16V B 0.1UF K
C4406	24109103	CERAMIC CHIP, 50V B 10000PF K
C4420	24794221	ELECTROIYTIC, 16V 220UF M
C4421	24109103	CERAMIC CHIP, 50V B 10000PF K
C4422	24797010	ELECTROLYTIC, 50V 1UF M
C4423	24109103	CERAMIC CHIP, 50V B 10000PF K
C4424	24085958	ELEC. NONPOLAR CE04J 50V 1.0UF M NP
C4430	24794100	ELECTROLYTIC, 16V 10UF M
C4451	24763101	ELECTROLYTIC, 16V 100UF M
C5020	24100104	CERAMIC CHIP, 25V F 100000PF Z
C5030	24794101	ELECTROLYTIC, 16V 100UF M
C7702	24105101	CERAMIC CHIP, 50V CH 100PF J
C7747	24667101	ELECTROLYTIC, 25V 100UF M 3A
C7749	24567334	PLASTIC FILM, 50V 0.33UF J
C7750	24667101	ELECTROLYTIC, 25V 100UF M 3A

Location No.	Parts No.	Description
C7755	24667101	ELECTROLYTIC, 25V 100UF M 3A
C7757	24567334	PLASTIC FILM, 50V 0.33UF J
C7758	24667101	ELECTROLYTIC, 25V 100UF M 3A
C7767	24667101	ELECTROLYTIC, 25V 100UF M 3A
C7769	24109103	CERAMIC CHIP, 50V B 10000PF K
C7774	24105331	CERAMIC CHIP, 50V CH 330PF J
C7776	24667101	ELECTROLYTIC, 25V 100UF M 3A
C7779	24669479	ELECTROLYTIC, 50V 4.7UF M 3A
C7782	24669221	ELECTROLYTIC CE04Q 50V 220UF M 3A
C7785	24667221	ELECTROLYTIC, 25V 220UF M 3A
C7788	24669221	ELECTROLYTIC CE04Q 50V 220UF M 3A
C7791	24667221	ELECTROLYTIC, 25V 220UF M 3A
C7792	24109472	CERAMIC CHIP, 50V B 4700PF K
C7793	24567104	PLASTIC FILM, 50V 0.1UF J
C7794	24567104	PLASTIC FILM, 50V 0.1UF J
C7795	24109472	CERAMIC CHIP, 50V B 4700PF K
C7796	24666100	ELECTROLYTIC, 10V 10UF M 3A
C7798	24109102	CERAMIC CHIP, 50V B 1000PF K
C7810	24105471	CERAMIC CHIP, 50V CH 470PF J
C7811	24105471	CERAMIC CHIP, 50V CH 470PF J
C7812	24105331	CERAMIC CHIP, 50V CH 330PF J
C7813	24669221	ELECTROLYTIC CE04Q 50V 220UF M 3A
C7814	24669221	ELECTROLYTIC CE04Q 50V 220UF M 3A
C8001	24073098	ELECTROLYTIC, 450V 4.7UF M 3A
C8100	24668222	ELECTROLYTIC, 35V 2200UF M 3A
C8101	24668102	ELECTROLYTIC, 35V 1000UF M 3A
C8102	24617824	ELECTROLYTIC CE04P 50V 1000UF M
C8103	24669471	ELECTROLYTIC, 50V 470UF M 3A
C8130	24503002	MT PLA AC275V 0.22UF M
C8610	24669478	ELECTROLYTIC, 50V 0.47UF M 3A
C8611	24669478	ELECTROLYTIC, 50V 0.47UF M 3A
CA09	24105101	CERAMIC CHIP, 50V CH 100PF J
CA10	24105101	CERAMIC CHIP, 50V CH 100PF J
CA30	24105101	CERAMIC CHIP, 50V CH 100PF J
CA33	24100103	CERAMIC CHIP, 50V F 10000PF Z
CA42	24794100	ELECTROLYTIC, 16V 10UF M
CA43	24109103	CERAMIC CHIP, 50V B 10000PF K
CA58	24794330	ELECTROLYTIC CE04G 16V 33UF M
CA68	24794100	ELECTROLYTIC, 16V 10UF M
CA69	24100103	CERAMIC CHIP, 50V F 10000PF Z
CA501	24109103	CERAMIC CHIP, 50V B 10000PF K
CB01	24794470	ELECTORLYTIC, 16V 47UF M
CB90	24100103	CERAMIC CHIP, 50V F 10000PF Z
CC01	24109103	CERAMIC CHIP, 50V B 10000PF K
CC33	24105101	CERAMIC CHIP, 50V CH 100PF J
CC47	24212332	CERAMIC DISC, 50V B 3300PF K
CC48	24212332	CERAMIC DISC, 50V B 3300PF K
CD01	24797100	ELECTROLYTIC, 50V 10UF M
CD02	24539104	PLASTIC FILM, 50V 0.1UF J
CD03	24590472	PLASTIC FILM, 50V 4700PF J
CD04	24797479	ELECTROLYTIC, 50V 4.7UF M
CD05	24797479	ELECTROLYTIC, 50V 4.7UF M
CD06	24797479	ELECTROLYTIC, 50V 4.7UF M
CD07	24797479	ELECTROLYTIC, 50V 4.7UF M
CD08	24797100	ELECTROLYTIC, 50V 10UF M
CD09	24797220	ELECTROLYTIC, 50V 22UF M
CD10	24797100	ELECTROLYTIC, 50V 10UF M
CD11	24539104	PLASTIC FILM, 50V 0.1UF J
CD12	24539224	PLASTIC FILM, 50V 0.22 UF J
CD13	24794470	ELECTORLYTIC, 16V 47UF M
CD14	24590472	PLASTIC FILM, 50V 4700PF J
CD15	24539104	PLASTIC FILM, 50V 0.1UF J
CD17	24797100	ELECTROLYTIC, 50V 10UF M
CD18	24794221	ELECTROIYTIC, 16V 220UF M
CD21	24590102	PLASTIC FILM, 50V 1000PF J

Location No.	Parts No.	Description
CD22	24436151	CERAMIC DISC, 50V SL 150PF J
CD24	24590102	PLASTIC FILM, 50V 1000PF J
CD25	24436151	CERAMIC DISC, 50V SL 150PF J
CD41	24503041	PLASTIC FILM , 63V 0.1UF J
CD42	24590103	PLASTIC FILM, 50V 0.01MF J
CD43	24503041	PLASTIC FILM , 63V 0.1UF J
CD44	24503041	PLASTIC FILM , 63V 0.1UF J
CD45	24539474	MT PLA CAP M 50V 474J MUL
CD46	24539474	MT PLA CAP M 50V 474J MUL
CD47	24539334	PLASTIC FILM, 50V 0.33UF J
CD48	24539334	PLASTIC FILM, 50V 0.33UF J
CD49	24797010	ELECTROLYTIC, 50V 1UF M
CD60	24797100	ELECTROLYTIC, 50V 10UF M
CD61	24567333	PLASTIC FILM, 50V 33000PF J
CD62	24590103	PLASTIC FILM, 50V 0.01MF J
CD63	24539474	MT PLA CAP M 50V 474J MUL
CD64	24539334	PLASTIC FILM, 50V 0.33UF J
CD65	24436221	CERAMIC DISC, 50V SL 220PF J
CD70	24794221	ELECTROIYTIC, 16V 220UF M
CD73	24797100	ELECTROLYTIC, 50V 10UF M
CD74	24794221	ELECTROIYTIC, 16V 220UF M
CD75	24797100	ELECTROLYTIC, 50V 10UF M
CD76	24797100	ELECTROLYTIC, 50V 10UF M
CD77	24797100	ELECTROLYTIC, 50V 10UF M
CD79	24797220	ELECTROLYTIC, 50V 22UF M
CD80	24797220	ELECTROLYTIC, 50V 22UF M
CD81	24503041	PLASTIC FILM , 63V 0.1UF J
CD82	24503041	PLASTIC FILM , 63V 0.1UF J
CD83	24503041	PLASTIC FILM , 63V 0.1UF J
CD84	24503041	PLASTIC FILM , 63V 0.1UF J
CD85	24797100	ELECTROLYTIC, 50V 10UF M
CD86	24797100	ELECTROLYTIC, 50V 10UF M
CD87	24797100	ELECTROLYTIC, 50V 10UF M
CD88	24797100	ELECTROLYTIC, 50V 10UF M
CD103	24797220	ELECTROLYTIC, 50V 22UF M
CD104	24590102	PLASTIC FILM, 50V 1000PF J
CD105	24539104	PLASTIC FILM, 50V 0.1UF J
CD106	24539124	PLASTEC FILM, 50V 0.12UF J
CD107	24539563	PLASTIC FILM, 50V 0.056UF J
CD108	24797010	ELECTROLYTIC, 50V 1UF M
CD109	24797100	ELECTROLYTIC, 50V 10UF M
CD110	24590103	PLASTIC FILM, 50V 0.01MF J
CD111	24797100	ELECTROLYTIC, 50V 10UF M
CD113	24797010	ELECTROLYTIC, 50V 1UF M
CD114	24797010	ELECTROLYTIC, 50V 1UF M
CD115	24797010	ELECTROLYTIC, 50V 1UF M
CD116	24590103	PLASTIC FILM, 50V 0.01MF J
CD117	24590103	PLASTIC FILM, 50V 0.01MF J
CD118	24567273	PLASTIC FILM, 50V 0.027UF J
CD120	24794221	ELECTROIYTIC, 16V 220UF M
CD121	24590822	PLASTIC FILM, 50V 8200PF J
CD123	24797220	ELECTROLYTIC, 50V 22UF M
CD124	24797010	ELECTROLYTIC, 50V 1UF M
CD125	24567273	PLASTIC FILM, 50V 0.027UF J
CD126	24590822	PLASTIC FILM, 50V 8200PF J
CD128	24797220	ELECTROLYTIC, 50V 22UF M
CR12	24100104	CERAMIC CHIP, 25V F 100000PF Z
CR13	24100104	CERAMIC CHIP, 25V F 100000PF Z
CR14	24100104	CERAMIC CHIP, 25V F 100000PF Z
CR99	24100104	CERAMIC CHIP, 25V F 100000PF Z
CS01	24206229	ELECTROLYTIC, 50V 2.2UF M 7L 3A
CS02	24206229	ELECTROLYTIC, 50V 2.2UF M 7L 3A
CS05	24206229	ELECTROLYTIC, 50V 2.2UF M 7L 3A
CS06	24206229	ELECTROLYTIC, 50V 2.2UF M 7L 3A
CS07	24206229	ELECTROLYTIC, 50V 2.2UF M 7L 3A

Location No.	Parts No.	Description
CS08	24206229	ELECTROLYTIC, 50V 2.2UF M 7L 3A
CS09	24206229	ELECTROLYTIC, 50V 2.2UF M 7L 3A
CS11	24797229	ELECTROLYTIC, 50V 2.2UF M
CS12	24797229	ELECTROLYTIC, 50V 2.2UF M
CS14	24797100	ELECTROLYTIC, 50V 10UF M
CS15	24797100	ELECTROLYTIC, 50V 10UF M
CS16	24206229	ELECTROLYTIC, 50V 2.2UF M 7L 3A
CS19	24797478	ELECTROLYTIC, 50V 0.47UF M
CS20	24797100	ELECTROLYTIC, 50V 10UF M
CS21	24797100	ELECTROLYTIC, 50V 10UF M
CT99	24793102	ELECTROLYTIC, 10V 1000UF M
CV02	24100104	CERAMIC CHIP, 25V F 100000PF Z
CV03	24100104	CERAMIC CHIP, 25V F 100000PF Z
CV04	24100104	CERAMIC CHIP, 25V F 100000PF Z
CV05	24109103	CERAMIC CHIP, 50V B 10000PF K
CV06	24100104	CERAMIC CHIP, 25V F 100000PF Z
CV07	24109103	CERAMIC CHIP, 50V B 10000PF K
CV08	24763221	ELECTROLYTIC, 16V 220UF M
CV09	24100104	CERAMIC CHIP, 25V F 100000PF Z
CV12	24567104	PLASTIC FILM, 50V 0.1UF J
CV23	24794101	ELECTROLYTIC, 16V 100UF M
CV25	24794220	ELECTROLYTIC, 16V 22UF M
CV27	24109473	CERAMIC CHIP, 25V B 47000PFK
CV35	24109102	CERAMIC CHIP, 50V B 1000PF K
CV37	24109102	CERAMIC CHIP, 50V B 1000PF K
CV52	24794100	ELECTROLYTIC, 16V 10UF M
CV64	24797010	ELECTROLYTIC, 50V 1UF M
CV71	24794471	ELECTROLYTIC, 16V 470UF M
CV73	24794101	ELECTROLYTIC, 16V 100UF M
CY103	24109103	CERAMIC CHIP, 50V B 10000PF K
CY104	24793101	ELECTROLYTIC, 10V 100UF M
CY109	24109103	CERAMIC CHIP, 50V B 10000PF K
CY110	24109103	CERAMIC CHIP, 50V B 10000PF K
CY111	24796479	ELECTROLYTIC, 35V 4.7UF M
CY112	24794101	ELECTROLYTIC, 16V 100UF M
CY117	24109102	CERAMIC CHIP, 50V B 1000PF K
CZ01	24105101	CERAMIC CHIP, 50V CH 100PF J
RESISTORS		
R101	24383153	OXIDE METAL FILM, 2W 15K OHM J
R205	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R206	24366221	CARBON FILM, 1/6W 220 OHM J
R213	24366681	CARBON FILM, 1/6W 680 OHM J
R214	24366681	CARBON FILM, 1/6W 680 OHM J
R215	24366681	CARBON FILM, 1/6W 680 OHM J
R218	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R219	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R220	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R241	24367393	CARBON FILM, 1/6W 39K OHM J
R242	24367183	CARBON FILM, 1/6W 18K OHM G
R243	24367183	CARBON FILM, 1/6W 18K OHM G
R245	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
R247	24366102	CARBON FILM, 1/6W 1K OHM J
R301	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R302	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R303	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R304	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R305	24322828	OXIDE METAL FILM, 1W 0.82 OHM J
R306	24011123	CHIP, METAL FILM, 1/20W 12K OHM J
R307	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R308	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R310	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
R312	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R314	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
R315	24011821	CHIP, METAL FILM, 1/20W 820 OHM J

Location No.	Parts No.	Description
R316	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R319	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
R320	24000249	METAL FILM, 1/4W 47K OHM F
R321	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R322	24000635	METAL FILM, 1/4W 12K OHM F
R323	24000635	METAL FILM, 1/4W 12K OHM F
R324	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R325	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R326	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R327	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R328	24000633	METAL FILM, 1/4W 10K OHM F
R329	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R330	24000221	METAL FILM, 1/4W 20K OHM F
R331	24019119	METAL FILM, 1/6W 30K OHM J
R332	24000525	METAL FILM, 1/4W 4.7K OHM F
R333	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R334	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R335	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R336	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R337	24321129	OXIDE METAL FILM, 1/2W 1.2 OHM J
R338	24011123	CHIP, METAL FILM, 1/20W 12K OHM J
R339	24011393	CHIP, METAL FILM, 1/20W 39K OHM J
R340	24011824	CHIP, METAL FILM, 1/20W 820K OHM J
R341	24011273	CHIP, METAL FILM, 1/20W 27K OHM J
R342	24011822	CHIP, METAL FILM, 1/20W 8.2K OHM J
R343	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R344	24382271	OXIDE METAL FILM, 1W 270 OHM J
R346	24382391	OXIDE METAL FILM, 1W 390 OHM J
R347	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R348	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R349	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
R350	24011822	CHIP, METAL FILM, 1/20W 8.2K OHM J
R355	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R359	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R360	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R362	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
R363	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R364	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R365	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R370	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R371	24011823	CHIP, METAL FILM, 1/20W 82K OHM J
R372	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
R373	24011823	CHIP, METAL FILM, 1/20W 82K OHM J
R374	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
R375	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
R376	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
R377	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R378	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
R382	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R383	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R384	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R385	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R390	24382561	OXIDE METAL FILM, 1W 560 OHM J
R391	24382561	OXIDE METAL FILM, 1W 560 OHM J
R392	24382561	OXIDE METAL FILM, 1W 560 OHM J
R403	24382101	OXIDE METAL FILM, 1W 100 OHM J
R404	24366332	CARBON FILM, 1/6W 3.3K OHM J
R405	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R406	24382222	OXIDE METAL FILM, 1W 2.2K OHM J
R407	24381100	OXIDE METAL FILM, 1/2W 10 OHM J
R409	24555220	OXIDE METAL FILM, 3W 22 OHM J
R410	24555220	OXIDE METAL FILM, 3W 22 OHM J
R411	24323479	METAL FILM, 2W 4.7 OHM J
R412	24383223	OXIDE METAL FILM, 2W 22K OHM J
R413	24011101	CHIP, METAL FILM, 1/20W 100 OHM J

Location No.	Parts No.	Description
R414	24019259	FUSIBLE, 1/4W 27 OHM G
R415	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R416	24383121	OXIDE METAL FILM, 1/2W 120 OHM J
R418	24382104	OXIDE METAL FILM, 1W 100K OHM J
R419	24942102	CARBON COMPOSITION, 1/2W 1K OHM J
R420	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R421	24366223	CARBON FILM, 1/6W 22K OHM J
R422	24366223	CARBON FILM, 1/6W 22K OHM J
R431	24383102	OXIDE METAL FILM, 2W 1K OHM J
R432	24376274	CARBON FILM, 1/2W 270K OHM J
R433	24376274	CARBON FILM, 1/2W 270K OHM J
R434	24376274	CARBON FILM, 1/2W 270K OHM J
R435	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R441	24533331	FUSIBLE, 2W 330 OHM J
R443	24988011	METAL FILM, 1/2W 1 OHM J
R444	24322398	OXIDE METAL FILM, 1W 0.39 OHM J
R446	24366153	CARBON FILM, 1/6W 15K OHM J
R447	24382473	OXIDE METAL FILM, 1W 47K OHM J
R448	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R449	24011152	CHIP, METAL FILM, 1/20W 1.5K OHM J
R460	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R461	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R462	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R463	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R464	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R465	24011474	CHIP, METAL FILM, 1/20W 470K OHM J
R466	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R467	24011823	CHIP, METAL FILM, 1/20W 82K OHM J
R469	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R470	24011224	CHIP, METAL FILM, 1/20W 220K OHM J
R472	24366151	CARBON FILM, 1/6W 150 OHM J
R473	24000362	METAL FILM, 1/4W 1.5K OHM F
R474	24000370	METAL FILM, 1/4W 3.3K OHM F
R476	24000137	METAL FILM, 1/4W 150 OHM F
R477	24000147	METAL FILM, 1/4W 470 OHM F
R478	24323568	OXIDE METAL FILM, 2W 0.56 OHM J
R479	24366103	CARBON FILM, 1/6W 10K OHM J
R480	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R481	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R482	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R483	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
R484	24011474	CHIP, METAL FILM, 1/20W 470K OHM J
R485	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R486	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R488	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
R489	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R490	24552331	OXIDE METAL FILM, 1/2W 330 OHM J
R491	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R513	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R513	24366101	CARBON FILM, 1/6W 100 OHM J
R515	24366103	CARBON FILM, 1/6W 10K OHM J
R516	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R517	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R543	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
R548	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
R552	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R553	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
R554	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R555	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R561	24552181	OXIDE METAL FILM, 1/2W 180 OHM J
R569	24011154	CHIP, METAL FILM, 1/20W 150K OHM J
R592	24011272	CHIP, METAL FILM, 1/20W 2.7K OHM J
R593	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R594	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R595	24011272	CHIP, METAL FILM, 1/20W 2.7K OHM J

Location No.	Parts No.	Description
R596	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R597	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R601	24011152	CHIP, METAL FILM, 1/20W 1.5K OHM J
R602	24011152	CHIP, METAL FILM, 1/20W 1.5K OHM J
R603	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
R604	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
R605	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R606	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R607	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R608	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R609	24366229	CARBON FILM, 1/6W 2.2 OHM J
R610	24366229	CARBON FILM, 1/6W 2.2 OHM J
R611	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
R612	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R613	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R614	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R615	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R616	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R617	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
R618	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R619	24011224	CHIP, METAL FILM, 1/20W 220K OHM J
R620	24552152	OXIDE METAL FILM, 1/2W 1.5K OHM J
R621	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
R622	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
R623	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
R630	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
R632	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
R633	24011123	CHIP, METAL FILM, 1/20W 12K OHM J
R634	24011393	CHIP, METAL FILM, 1/20W 39K OHM J
R635	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
R636	24872822	CHIP, METAL FILM, 1/16W 8.2K OHM J
R637	24872822	CHIP, METAL FILM, 1/16W 8.2K OHM J
R638	24872822	CHIP, METAL FILM, 1/16W 8.2K OHM J
R639	24872822	CHIP, METAL FILM, 1/16W 8.2K OHM J
R641	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R642	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R651	24011123	CHIP, METAL FILM, 1/20W 12K OHM J
R652	24011273	CHIP, METAL FILM, 1/20W 27K OHM J
R653	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R654	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R655	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
R656	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
R657	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R658	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R659	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R660	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R661	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
R662	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
R663	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R664	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R665	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
R666	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
R667	24011682	CHIP, METAL FILM, 1/20W 6.8K OHM J
R668	24011682	CHIP, METAL FILM, 1/20W 6.8K OHM J
R669	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R670	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R671	24382820	OXIDE METAL FILM, 1W 82 OHM J
R672	24382820	OXIDE METAL FILM, 1W 82 OHM J
R673	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R674	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R675	24382390	OXIDE METAL FILM, 1W 39 OHM J
R690	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R690	24366100	CARBON FILM, 1/6W 10 OHM J
R691	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R691	24366100	CARBON FILM, 1/6W 10 OHM J

Location No.	Parts No.	Description
R693	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R694	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R695	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R702	24552221	OXIDE METAL FILM, 1/2W 220 OHM J
R709	24366563	CARBON FILM, 1/6W 56K OHM J
R713	24366273	CARBON FILM, 1/6W 27K OHM J
R715	24366333	CARBON FILM, 1/6W 33K OHM J
R716	24366273	CARBON FILM, 1/6W 27K OHM J
R717	24366333	CARBON FILM, 1/6W 33K OHM J
R718	24366101	CARBON FILM, 1/6W 100 OHM J
R719	24366100	CARBON FILM, 1/6W 10 OHM J
R720	24366102	CARBON FILM, 1/6W 1K OHM J
R722	24552471	OXIDE METAL FILM, 1/2W 470 OHM J
R723	24366101	CARBON FILM, 1/6W 100 OHM J
R724	24366151	CARBON FILM, 1/6W 150 OHM J
R725	24366152	CARBON FILM, 1/6W 1.5K OHM J
R730	24552100	OXIDE METAL FILM, 1/2W 10 OHM J
R731	24552331	OXIDE METAL FILM, 1/2W 330 OHM J
R732	24366470	CARBON FILM, 1/6W 47 OHM J
R733	24366683	CARBON FILM, 1/6W 68K OHM J
R734	24366470	CARBON FILM, 1/6W 47 OHM J
R735	24366683	CARBON FILM, 1/6W 68K OHM J
R736	24553330	OXIDE METAL FILM, 1W 33 OHM J
R737	24366751	CARBON FILM, 1/6W 750 OHM J
R738	24366102	CARBON FILM, 1/6W 1K OHM J
R739	24366751	CARBON FILM, 1/6W 750 OHM J
R740	24553330	OXIDE METAL FILM, 1W 33 OHM J
R741	24322229	OXIDE METAL FILM, 1W 2.2 OHM J
R742	24321229	OXIDE METAL FILM, 1/2W 2.2 OHM J
R743	24554221	OXIDE METAL FILM, 2W 220 OHM J
R744	24366122	CARBON FILM, 1/6W 1.2K OHM J
R745	24366122	CARBON FILM, 1/6W 1.2K OHM J
R761	24366273	CARBON FILM, 1/6W 27K OHM J
R762	24366563	CARBON FILM, 1/6W 56K OHM J
R763	24552331	OXIDE METAL FILM, 1/2W 330 OHM J
R764	24366470	CARBON FILM, 1/6W 47 OHM J
R765	24552100	OXIDE METAL FILM, 1/2W 10 OHM J
R766	24366470	CARBON FILM, 1/6W 47 OHM J
R767	24552221	OXIDE METAL FILM, 1/2W 220 OHM J
R768	24366751	CARBON FILM, 1/6W 750 OHM J
R769	24366122	CARBON FILM, 1/6W 1.2K OHM J
R770	24553330	OXIDE METAL FILM, 1W 33 OHM J
R771	24322229	OXIDE METAL FILM, 1W 2.2 OHM J
R772	24366683	CARBON FILM, 1/6W 68K OHM J
R773	24366683	CARBON FILM, 1/6W 68K OHM J
R774	24366751	CARBON FILM, 1/6W 750 OHM J
R775	24366122	CARBON FILM, 1/6W 1.2K OHM J
R776	24553330	OXIDE METAL FILM, 1W 33 OHM J
R777	24321229	OXIDE METAL FILM, 1/2W 2.2 OHM J
R778	24366102	CARBON FILM, 1/6W 1K OHM J
R779	24554221	OXIDE METAL FILM, 2W 220 OHM J
R781	24366273	CARBON FILM, 1/6W 27K OHM J
R782	24366563	CARBON FILM, 1/6W 56K OHM J
R783	24552221	OXIDE METAL FILM, 1/2W 220 OHM J
R784	24552100	OXIDE METAL FILM, 1/2W 10 OHM J
R785	24366470	CARBON FILM, 1/6W 47 OHM J
R786	24366751	CARBON FILM, 1/6W 750 OHM J
R787	24366122	CARBON FILM, 1/6W 1.2K OHM J
R788	24366683	CARBON FILM, 1/6W 68K OHM J
R789	24366683	CARBON FILM, 1/6W 68K OHM J
R790	24366751	CARBON FILM, 1/6W 750 OHM J
R791	24366122	CARBON FILM, 1/6W 1.2K OHM J
R792	24366102	CARBON FILM, 1/6W 1K OHM J
R793	24321229	OXIDE METAL FILM, 1/2W 2.2 OHM J
R794	24553330	OXIDE METAL FILM, 1W 33 OHM J

Location No.	Parts No.	Description
R795	24322229	OXIDE METAL FILM, 1W 2.2 OHM J
R796	24554221	OXIDE METAL FILM, 2W 220 OHM J
R797	24366470	CARBON FILM, 1/6W 47 OHM J
R798	24552331	OXIDE METAL FILM, 1/2W 330 OHM J
R799	24553330	OXIDE METAL FILM, 1W 33 OHM J
R802	24366102	CARBON FILM, 1/6W 1K OHM J
R803	24366683	CARBON FILM, 1/6W 68K OHM J
R805	24366471	CARBON FILM, 1/6W 470 OHM J
R806	24366471	CARBON FILM, 1/6W 470 OHM J
R807	24367273	CARBON FILM, 1/6W 27K OHM G
R808	24552470	OXIDE METAL FILM, 1/2W 47 OHM J
R809	24321689	METAL FILM, 1/2W 6.8 OHM J
R810	24382680	OXIDE METAL FILM, 1W 68 OHM J
R811	24552121	OXIDE METAL FILM, 1/2W 120 OHM J
R812	24552390	OXIDE METAL FILM, 1/2W 39 OHM J
R816	24383103	OXIDE METAL FILM, 2W 10K OHM J
R817	24009954	METAL FILN, 1/2W 2.2M OHM J
R819	24009954	METAL FILN, 1/2W 2.2M OHM J
R820	24007061	CERAMIC COVERD, 2W 1.8 OHM K
R821	24510229	CEMENT, 5W 2.2 OHM J
R822	24366102	CARBON FILM, 1/6W 1K OHM J
R823	24553820	OXIDE METAL FILM, 1W 82 OHM J
R827	24988003	METAL FILM 1/2W R22 J
R828	24383103	OXIDE METAL FILM, 2W 10K OHM J
R830	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R831	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R832	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R832	24321828	OXIDE METAL FILM, 1/2W 0.82 OHM J
R833	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R833	24321189	OXIDE METAL FILM, 1/2W 1.8 OHM J
R834	24366330	CARBON FILM, 1/6W 33 OHM J
R834	24366332	CARBON FILM, 1/6W 3.3K OHM J
R835	24366150	CARBON FILM, 1/6W 15 OHM J
R836	24007952	CERAMIC-COVERED G 5W 6.8. J
R837	24321479	OXIDE METAL FILM, 1/2W 4.7 OHM J
R838	24383333	OXIDE METAL FILM, 2W 33K OHM J
R839	24383473	OXIDE METAL FILM, 2W 47K OHM J
R840	24382124	OXIDE METAL FILM, 1W 120K OHM J
R841	24366102	CARBON FILM, 1/6W 1K OHM J
R842	24366332	CARBON FILM, 1/6W 3.3K OHM J
R843	24366332	CARBON FILM, 1/6W 3.3K OHM J
R844	24366473	CARBON FILM, 1/6W 47K OHM J
R845	24366153	CARBON FILM, 1/6W 15K OHM J
R846	24366331	CARBON FILM, 1/6W 330 OHM J
R847	24366331	CARBON FILM, 1/6W 330 OHM J
R854	24553121	OXIDE METAL FILM, 1W 120 OHM J
R855	24553271	OXIDE METAL FILM, 1W 270 OHM J
R856	24366152	CARBON FILM, 1/6W 1.5K OHM J
R857	24381682	OXIDE METAL FILM, 1/2W 6.8K OHM J
R858	24366102	CARBON FILM, 1/6W 1K OHM J
R859	24553333	OXIDE METAL FILM, 1W 33K OHM J
R861	24005015	METAL GLAZE, 1W 8.2M OHM J
R862	24366104	CARBON FILM, 1/6W 100K OHM J
R863	24366101	CARBON FILM, 1/6W 100 OHM J
R865	24545109	FUSIBLE, 1/4W 1 OHM J
R870	24552100	OXIDE METAL FILM, 1/2W 10 OHM J
R871	24366103	CARBON FILM, 1/6W 10K OHM J
R874	24366109	CARBON FILM, 1/6W 1 OHM J
R901	24366101	CARBON FILM, 1/6W 100 OHM J
R903	24942102	CARBON COMPOSITION, 1/2W 1K OHM J
R905	24366330	CARBON FILM, 1/6W 33 OHM J
R906	24366331	CARBON FILM, 1/6W 330 OHM J
R908	24366330	CARBON FILM, 1/6W 33 OHM J
R909	24366330	CARBON FILM, 1/6W 33 OHM J
R911	24366101	CARBON FILM, 1/6W 100 OHM J

Location No.	Parts No.	Description
R913	24942102	CARBON COMPOSITION, 1/2W 1K OHM J
R915	24366330	CARBON FILM, 1/6W 33 OHM J
R916	24366331	CARBON FILM, 1/6W 330 OHM J
R917	24366102	CARBON FILM, 1/6W 1K OHM J
R918	24366220	CARBON FILM, 1/6W 22 OHM J
R919	24366270	CARBON FILM, 1/6W 27 OHM J
R920	24366153	CARBON FILM, 1/6W 15K OHM J
R921	24366101	CARBON FILM, 1/6W 100 OHM J
R923	24942102	CARBON COMPOSITION, 1/2W 1K OHM J
R925	24366330	CARBON FILM, 1/6W 33 OHM J
R926	24366331	CARBON FILM, 1/6W 330 OHM J
R927	24366100	CARBON FILM, 1/6W 10 OHM J
R928	24366680	CARBON FILM, 1/6W 68 OHM J
R929	24366390	CARBON FILM, 1/6W 39 OHM J
R930	24366153	CARBON FILM, 1/6W 15K OHM J
R931	24383153	OXIDE METAL FILM, 2W 15K OHM J
R932	24383153	OXIDE METAL FILM, 2W 15K OHM J
R933	24000889	FUSIBLE, 1W 1.8 OHM J
R934	24321688	OXIDE METAL FILM, 1/2W 0.68 OHM J
R936	24383153	OXIDE METAL FILM, 2W 15K OHM J
R937	24383153	OXIDE METAL FILM, 2W 15K OHM J
R938	24366150	CARBON FILM, 1/6W 15 OHM J
R941	24554153	OXIDE METAL FILM, 2W 15K OHM J
R942	24554153	OXIDE METAL FILM, 2W 15K OHM J
R943	24554153	OXIDE METAL FILM, 2W 15K OHM J
R944	24383153	OXIDE METAL FILM, 2W 15K OHM J
R945	24366150	CARBON FILM, 1/6W 15 OHM J
R948	24366562	CARBON FILM, 1/6W 5.6K OHM J
R949	24366153	CARBON FILM, 1/6W 15K OHM J
R951	24554153	OXIDE METAL FILM, 2W 15K OHM J
R952	24554153	OXIDE METAL FILM, 2W 15K OHM J
R953	24554153	OXIDE METAL FILM, 2W 15K OHM J
R954	24383153	OXIDE METAL FILM, 2W 15K OHM J
R956	24366101	CARBON FILM, 1/6W 100 OHM J
R959	24366150	CARBON FILM, 1/6W 15 OHM J
R961	24366122	CARBON FILM, 1/6W 1.2K OHM J
R962	24366471	CARBON FILM, 1/6W 470 OHM J
R964	24366332	CARBON FILM, 1/6W 3.3K OHM J
R965	24366471	CARBON FILM, 1/6W 470 OHM J
R966	24366331	CARBON FILM, 1/6W 330 OHM J
R967	24366681	CARBON FILM, 1/6W 680 OHM J
R985	24366821	CARBON FILM, 1/6W 820 OHM J
R986	24366821	CARBON FILM, 1/6W 820 OHM J
R987	24366470	CARBON FILM, 1/6W 47 OHM J
R991	24366822	CARBON FILM, 1/6W 8.2K OHM J
R992	24366153	CARBON FILM, 1/6W 15K OHM J
R1063	24000445	CHIP JUMPER, 1608TYPE
R1065	24000445	CHIP JUMPER, 1608TYPE
R2104	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
R2105	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R2106	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
R3105	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R3106	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R3407	24011682	CHIP, METAL FILM, 1/20W 6.8K OHM J
R4401	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R4402	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R4403	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R4404	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R4405	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R4406	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R4407	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R4408	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R4409	24871472	CHIP, METAL FILM, 1/8W 4.7K OHM J
R4411	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R4412	24011101	CHIP, METAL FILM, 1/20W 100 OHM J

Location No.	Parts No.	Description
R4413	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R4420	24011331	CHIP, METAL FILM, 1/20W 330 OHM J
R4421	24011330	CHIP, METAL FILM, 1/20W 33 OHM J
R4422	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R4423	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R4424	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R4427	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R4428	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R4430	24381150	OXIDE METAL FILM, 1/2W 15 OHM J
R4431	24366102	CARBON FILM, 1/6W 1K OHM J
R4440	24011152	CHIP, METAL FILM, 1/20W 1.5K OHM J
R4451	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R4452	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R4453	24011682	CHIP, METAL FILM, 1/20W 6.8K OHM J
R4454	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R4455	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R4460	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
R4461	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
R4462	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
R4463	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R7001	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R7002	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R7003	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R7004	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R7005	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
R7006	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
R7007	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
R7008	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R7009	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R7010	24366222	CARBON FILM, 1/6W 2.2K OHM J
R7011	24011151	CHIP, METAL FILM, 1/20W 150 OHM J
R7012	24011151	CHIP, METAL FILM, 1/20W 150 OHM J
R7013	24011470	CHIP, METAL FILM, 1/20W 47 OHM J
R7014	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R7015	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R7016	24366101	CARBON FILM, 1/6W 100 OHM J
R7017	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R7018	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R7021	24383221	OXIDE METAL FILM, 2W 220 OHM J
R7022	24547159	FUSIBLE, 1W 1.5 OHM J
R7031	24366391	CARBON FILM, 1/6W 390 OHM J
R7032	24366222	CARBON FILM, 1/6W 2.2K OHM J
R7099	24011152	CHIP, METAL FILM, 1/20W 1.5K OHM J
R7101	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R7102	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R7103	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R7104	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R7105	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
R7106	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
R7107	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
R7108	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R7109	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R7111	24011151	CHIP, METAL FILM, 1/20W 150 OHM J
R7112	24011151	CHIP, METAL FILM, 1/20W 150 OHM J
R7113	24011470	CHIP, METAL FILM, 1/20W 47 OHM J
R7114	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R7115	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R7116	24366101	CARBON FILM, 1/6W 100 OHM J
R7117	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R7118	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R7121	24383221	OXIDE METAL FILM, 2W 220 OHM J
R7122	24547159	FUSIBLE, 1W 1.5 OHM J
R7131	24366391	CARBON FILM, 1/6W 390 OHM J
R7199	24011152	CHIP, METAL FILM, 1/20W 1.5K OHM J
R7201	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J

Location No.	Parts No.	Description
R7202	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R7203	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R7204	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R7205	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
R7206	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
R7207	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
R7208	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R7209	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R7210	24366222	CARBON FILM, 1/6W 2.2K OHM J
R7211	24011151	CHIP, METAL FILM, 1/20W 150 OHM J
R7212	24011151	CHIP, METAL FILM, 1/20W 150 OHM J
R7213	24011470	CHIP, METAL FILM, 1/20W 47 OHM J
R7214	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R7215	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R7216	24366101	CARBON FILM, 1/6W 100 OHM J
R7217	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R7218	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R7221	24383221	OXIDE METAL FILM, 2W 220 OHM J
R7222	24547159	FUSIBLE, 1W 1.5 OHM J
R7231	24366391	CARBON FILM, 1/6W 390 OHM J
R7232	24366222	CARBON FILM, 1/6W 2.2K OHM J
R7299	24011152	CHIP, METAL FILM, 1/20W 1.5K OHM J
R7301	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R7302	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R7303	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R7304	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R7305	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
R7306	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
R7307	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
R7308	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R7309	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R7311	24011151	CHIP, METAL FILM, 1/20W 150 OHM J
R7312	24011151	CHIP, METAL FILM, 1/20W 150 OHM J
R7313	24011470	CHIP, METAL FILM, 1/20W 47 OHM J
R7314	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R7315	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R7316	24366101	CARBON FILM, 1/6W 100 OHM J
R7317	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R7318	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R7321	24383221	OXIDE METAL FILM, 2W 220 OHM J
R7322	24547159	FUSIBLE, 1W 1.5 OHM J
R7331	24366391	CARBON FILM, 1/6W 390 OHM J
R7399	24011152	CHIP, METAL FILM, 1/20W 1.5K OHM J
R7401	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R7402	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R7403	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R7404	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R7405	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
R7406	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
R7407	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
R7408	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R7409	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R7410	24366222	CARBON FILM, 1/6W 2.2K OHM J
R7411	24011151	CHIP, METAL FILM, 1/20W 150 OHM J
R7412	24011151	CHIP, METAL FILM, 1/20W 150 OHM J
R7413	24011470	CHIP, METAL FILM, 1/20W 47 OHM J
R7414	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R7415	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R7416	24366101	CARBON FILM, 1/6W 100 OHM J
R7417	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R7418	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R7421	24383221	OXIDE METAL FILM, 2W 220 OHM J
R7422	24547159	FUSIBLE, 1W 1.5 OHM J
R7431	24366391	CARBON FILM, 1/6W 390 OHM J
R7432	24366222	CARBON FILM, 1/6W 2.2K OHM J

Location No.	Parts No.	Description
R7499	24011152	CHIP, METAL FILM, 1/20W 1.5K OHM J
R7501	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R7502	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R7503	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R7504	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R7505	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
R7506	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
R7507	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
R7508	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R7509	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R7511	24011151	CHIP, METAL FILM, 1/20W 150 OHM J
R7512	24011151	CHIP, METAL FILM, 1/20W 150 OHM J
R7513	24011470	CHIP, METAL FILM, 1/20W 47 OHM J
R7514	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R7515	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R7516	24366101	CARBON FILM, 1/6W 100 OHM J
R7517	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R7518	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R7521	24383221	OXIDE METAL FILM, 2W 220 OHM J
R7522	24547159	FUSIBLE, 1W 1.5 OHM J
R7531	24366391	CARBON FILM, 1/6W 390 OHM J
R7599	24011152	CHIP, METAL FILM, 1/20W 1.5K OHM J
R7601	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R7602	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R7603	24381472	OXIDE METAL FILM, 1/2W 4.7K OHM J
R7604	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
R7605	24366472	CARBON FILM, 1/6W 4.7K OHM J
R7606	24366102	CARBON FILM, 1/6W 1K OHM J
R7607	24381472	OXIDE METAL FILM, 1/2W 4.7K OHM J
R7608	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R7609	24366153	CARBON FILM, 1/6W 15K OHM J
R7703	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
R7704	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R7705	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R7706	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R7766	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R7767	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
R7768	24011100	CHIP, METAL FILM, 1/20W 10 OHM J
R7773	24011224	CHIP, METAL FILM, 1/20W 220K OHM J
R7779	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R7780	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R7781	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
R7794	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R7832	24011221	CHIP, METAL FILM, 1/20W 220 OHM J
R7833	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R7834	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R7835	24366222	CARBON FILM, 1/6W 2.2K OHM J
R7836	24366471	CARBON FILM, 1/6W 470 OHM J
R7837	24366101	CARBON FILM, 1/6W 100 OHM J
R7838	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R7839	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R7840	24366222	CARBON FILM, 1/6W 2.2K OHM J
R7841	24366101	CARBON FILM, 1/6W 100 OHM J
R7842	24366472	CARBON FILM, 1/6W 4.7K OHM J
R7843	24366471	CARBON FILM, 1/6W 470 OHM J
R7844	24366472	CARBON FILM, 1/6W 4.7K OHM J
R7845	24011221	CHIP, METAL FILM, 1/20W 220 OHM J
R7846	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R7847	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R7848	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R7849	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R7850	24011224	CHIP, METAL FILM, 1/20W 220K OHM J
R7851	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
R7852	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R7853	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J

Location No.	Parts No.	Description
R7854	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R7855	24011470	CHIP, METAL FILM, 1/20W 47 OHM J
R7856	24011470	CHIP, METAL FILM, 1/20W 47 OHM J
R7863	24366333	CARBON FILM, 1/6W 33K OHM J
R7864	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R7865	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R7866	24011682	CHIP, METAL FILM, 1/20W 6.8K OHM J
R7867	24011682	CHIP, METAL FILM, 1/20W 6.8K OHM J
R7868	24011561	CHIP, METAL FILM, 1/20W 560 OHM J
R7869	24011470	CHIP, METAL FILM, 1/20W 47 OHM J
R8001	24988022	METAL FILM, 1/2W 8.2 OHM J
R8002	24988022	METAL FILM, 1/2W 8.2 OHM J
R8003	24988022	METAL FILM, 1/2W 8.2 OHM J
R8004	24988022	METAL FILM, 1/2W 8.2 OHM J
R8610	24366332	CARBON FILM, 1/6W 3.3K OHM J
R8611	24019090	METAL FILM, 1/4W 330K OHM F
R8612	24019090	METAL FILM, 1/4W 330K OHM F
R8613	24366151	CARBON FILM, 1/6W 150 OHM J
R8614	24000242	METAL FILM, 1/4W 18K OHM F
R8615	24366471	CARBON FILM, 1/6W 470 OHM J
R8617	24000633	METAL FILM, 1/4W 10K OHM F
R8618	24383473	OXIDE METAL FILM, 2W 47K OHM J
R8619	24366124	CARBON FILM, 1/6W 120K OHM J
R8620	24366473	CARBON FILM, 1/6W 47K OHM J
R8621	24366103	CARBON FILM, 1/6W 10K OHM J
R8622	24366101	CARBON FILM, 1/6W 100 OHM J
R8623	24366470	CARBON FILM, 1/6W 47 OHM J
R8625	24366101	CARBON FILM, 1/6W 100 OHM J
R9501	24366470	CARBON FILM, 1/6W 47 OHM J
R9502	24366470	CARBON FILM, 1/6W 47 OHM J
R9503	24366681	CARBON FILM, 1/6W 680 OHM J
R9504	24366683	CARBON FILM, 1/6W 68K OHM J
R9505	24366393	CARBON FILM, 1/6W 39K OHM J
R9506	24366681	CARBON FILM, 1/6W 680 OHM J
R9601	24366100	CARBON FILM, 1/6W 10 OHM J
R9602	24366392	CARBON FILM, 1/6W 3.9K OHM J
R9603	24366272	CARBON FILM, 1/6W 2.7K OHM J
R9604	24366272	CARBON FILM, 1/6W 2.7K OHM J
R9605	24366752	CARBON FILM, 1/6W 7.5K OHM J
R9606	24366272	CARBON FILM, 1/6W 2.7K OHM J
R9607	24366470	CARBON FILM, 1/6W 47 OHM J
R9608	24366681	CARBON FILM, 1/6W 680 OHM J
R9609	24366683	CARBON FILM, 1/6W 68K OHM J
R9610	24366393	CARBON FILM, 1/6W 39K OHM J
R9611	24366681	CARBON FILM, 1/6W 680 OHM J
R9612	24366470	CARBON FILM, 1/6W 47 OHM J
R9613	24366100	CARBON FILM, 1/6W 10 OHM J
R9614	24366330	CARBON FILM, 1/6W 33 OHM J
R9701	24366103	CARBON FILM, 1/6W 10K OHM J
R9702	24366103	CARBON FILM, 1/6W 10K OHM J
R9703	24366103	CARBON FILM, 1/6W 10K OHM J
R9704	24366561	CARBON FILM, 1/6W 560 OHM J
R9705	24366822	CARBON FILM, 1/6W 8.2K OHM J
R9706	24366471	CARBON FILM, 1/6W 470 OHM J
R9707	24366271	CARBON FILM, 1/6W 270 OHM J
R9708	24366331	CARBON FILM, 1/6W 330 OHM J
R9709	24366271	CARBON FILM, 1/6W 270 OHM J
R9710	24366222	CARBON FILM, 1/6W 2.2K OHM J
R9711	24366123	CARBON FILM, 1/6W 12K OHM J
R9712	24366153	CARBON FILM, 1/6W 15K OHM J
R9713	24366102	CARBON FILM, 1/6W 1K OHM J
R9714	24366102	CARBON FILM, 1/6W 1K OHM J
R9715	24366102	CARBON FILM, 1/6W 1K OHM J
RA01	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA02	24011102	CHIP, METAL FILM, 1/20W 1K OHM J

Location No.	Parts No.	Description
RA03	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA04	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA05	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA07	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA08	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA09	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA10	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
RA11	24011331	CHIP, METAL FILM, 1/20W 330 OHM J
RA12	24011331	CHIP, METAL FILM, 1/20W 330 OHM J
RA13	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA14	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA15	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA16	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA17	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA18	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA20	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA23	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA24	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA25	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA26	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA27	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA29	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA30	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA33	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA35	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA36	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RA37	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA38	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA40	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA41	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA42	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RA44	24011331	CHIP, METAL FILM, 1/20W 330 OHM J
RA50	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA51	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA58	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA59	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA60	24011470	CHIP, METAL FILM, 1/20W 47 OHM J
RA65	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA66	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA67	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA68	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RA70	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
RA71	24366683	CARBON FILM, 1/6W 68K OHM J
RA72	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA72	24366223	CARBON FILM, 1/6W 22K OHM J
RA73	24366103	CARBON FILM, 1/6W 10K OHM J
RA75	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
RA76	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA76	24366103	CARBON FILM, 1/6W 10K OHM J
RA77	24366223	CARBON FILM, 1/6W 22K OHM J
RA78	24366683	CARBON FILM, 1/6W 68K OHM J
RA100	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA122	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
RA123	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
RA124	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
RA125	24011221	CHIP, METAL FILM, 1/20W 220 OHM J
RA141	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
RA241	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RA251	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RA501	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA531	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RA591	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RB02	24366271	CARBON FILM, 1/6W 270 OHM J
RB03	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RB08	24366221	CARBON FILM, 1/6W 220 OHM J

Location No.	Parts No.	Description
RB09	24366470	CARBON FILM, 1/6W 47 OHM J
RB10	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RB10	24366102	CARBON FILM, 1/6W 1K OHM J
RB11	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RB11	24366103	CARBON FILM, 1/6W 10K OHM J
RB12	24366471	CARBON FILM, 1/6W 470 OHM J
RB21	24366561	CARBON FILM, 1/6W 560 OHM J
RB22	24366561	CARBON FILM, 1/6W 560 OHM J
RB23	24366561	CARBON FILM, 1/6W 560 OHM J
RB24	24366561	CARBON FILM, 1/6W 560 OHM J
RB25	24366223	CARBON FILM, 1/6W 22K OHM J
RB32	24011105	CHIP, METAL FILM, 1/20W 1M OHM J
RB33	24011123	CHIP, METAL FILM, 1/20W 12K OHM J
RB34	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
RB35	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
RB43	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RB44	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RB45	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RB46	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RB49	24011331	CHIP, METAL FILM, 1/20W 330 OHM J
RB81	24011122	CHIP, METAL FILM, 1/20W 1.2K OHM J
RB82	24011123	CHIP, METAL FILM, 1/20W 12K OHM J
RB83	24011123	CHIP, METAL FILM, 1/20W 12K OHM J
RB90	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
RB91	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RB92	24011271	CHIP, METAL FILM, 1/20W 270 OHM J
RB93	24011271	CHIP, METAL FILM, 1/20W 270 OHM J
RB94	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RB95	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RB96	24011273	CHIP, METAL FILM, 1/20W 27K OHM J
RB97	24011273	CHIP, METAL FILM, 1/20W 27K OHM J
RB98	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RC60	24366681	CARBON FILM, 1/6W 680 OHM J
RC61	24366681	CARBON FILM, 1/6W 680 OHM J
RC100	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC101	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC102	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC103	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC104	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC105	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC106	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC107	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC108	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC109	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC110	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RD01	24366472	CARBON FILM, 1/6W 4.7K OHM J
RD02	24366472	CARBON FILM, 1/6W 4.7K OHM J
RD03	24366105	CARBON FILM, 1/6W 1M OHM J
RD04	24366221	CARBON FILM, 1/6W 220 OHM J
RD05	24366101	CARBON FILM, 1/6W 100 OHM J
RD06	24366472	CARBON FILM, 1/6W 4.7K OHM J
RD07	24366472	CARBON FILM, 1/6W 4.7K OHM J
RD21	24366102	CARBON FILM, 1/6W 1K OHM J
RD22	24366222	CARBON FILM, 1/6W 2.2K OHM J
RD24	24366182	CARBON FILM, 1/6W 1.8K OHM J
RD25	24366101	CARBON FILM, 1/6W 100 OHM J
RD26	24366102	CARBON FILM, 1/6W 1K OHM J
RD27	24366222	CARBON FILM, 1/6W 2.2K OHM J
RD28	24366182	CARBON FILM, 1/6W 1.8K OHM J
RD30	24366101	CARBON FILM, 1/6W 100 OHM J
RD41	24366123	CARBON FILM, 1/6W 12K OHM J
RD42	24366333	CARBON FILM, 1/6W 33K OHM J
RD43	24366272	CARBON FILM, 1/6W 2.7K OHM J
RD44	24366123	CARBON FILM, 1/6W 12K OHM J
RD45	24366333	CARBON FILM, 1/6W 33K OHM J

Location No.	Parts No.	Description
RD46	24366272	CARBON FILM, 1/6W 2.7K OHM J
RD47	24366104	CARBON FILM, 1/6W 100K OHM J
RD48	24366682	CARBON FILM, 1/6W 6.8K OHM J
RD49	24366392	CARBON FILM, 1/6W 3.9K OHM J
RD60	24366392	CARBON FILM, 1/6W 3.9K OHM J
RD61	24366272	CARBON FILM, 1/6W 2.7K OHM J
RD62	24366272	CARBON FILM, 1/6W 2.7K OHM J
RD63	24366104	CARBON FILM, 1/6W 100K OHM J
RD72	24366103	CARBON FILM, 1/6W 10K OHM J
RD73	24366101	CARBON FILM, 1/6W 100 OHM J
RD74	24366101	CARBON FILM, 1/6W 100 OHM J
RD75	24366393	CARBON FILM, 1/6W 39K OHM J
RD76	24366182	CARBON FILM, 1/6W 1.8K OHM J
RD77	24366393	CARBON FILM, 1/6W 39K OHM J
RD78	24366182	CARBON FILM, 1/6W 1.8K OHM J
RD101	24366473	CARBON FILM, 1/6W 47K OHM J
RD102	24366473	CARBON FILM, 1/6W 47K OHM J
RD104	24366101	CARBON FILM, 1/6W 100 OHM J
RD107	24366101	CARBON FILM, 1/6W 100 OHM J
RD109	24366223	CARBON FILM, 1/6W 22K OHM J
RD110	24366473	CARBON FILM, 1/6W 47K OHM J
RD111	24366473	CARBON FILM, 1/6W 47K OHM J
RD113	24366101	CARBON FILM, 1/6W 100 OHM J
RD114	24366221	CARBON FILM, 1/6W 220 OHM J
RD115	24366101	CARBON FILM, 1/6W 100 OHM J
RD116	24366101	CARBON FILM, 1/6W 100 OHM J
RD117	24366472	CARBON FILM, 1/6W 4.7K OHM J
RD118	24366562	CARBON FILM, 1/6W 5.6K OHM J
RD119	24366562	CARBON FILM, 1/6W 5.6K OHM J
RD120	24366472	CARBON FILM, 1/6W 4.7K OHM J
RJ42	24000445	CHIP JUMPER, 1608TYPE
RR61	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RR63	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
RR64	24011152	CHIP, METAL FILM, 1/20W 1.5K OHM J
RR65	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RR68	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
RR69	24011152	CHIP, METAL FILM, 1/20W 1.5K OHM J
RR70	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RR74	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RR75	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RR85	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RR86	24011152	CHIP, METAL FILM, 1/20W 1.5K OHM J
RR87	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
RR88	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RS03	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS04	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS07	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS08	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS09	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS10	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS11	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS12	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS13	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS14	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS15	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS16	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS17	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS18	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS19	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RS20	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RS21	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RS22	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RS23	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS24	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS31	24011103	CHIP, METAL FILM, 1/20W 10K OHM J

Location No.	Parts No.	Description
RS32	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS35	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS36	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS37	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RS38	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RS39	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS40	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS41	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS42	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RS43	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RS44	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV09	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV10	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV15	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV19	24552101	OXIDE METAL FILM, 1/2W 100 OHM J
RV20	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RV21	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
RV22	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RV23	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
RV25	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RV26	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
RV29	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RV30	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
RV31	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RV32	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
RV33	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RV34	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV35	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RV38	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
RV52	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
RV61	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RV64	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RV66	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
RV67	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
RV71	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
RV72	24552101	OXIDE METAL FILM, 1/2W 100 OHM J
RV73	24366101	CARBON FILM, 1/6W 100 OHM J
RV74	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV88	24011181	CHIP, METAL FILM, 1/20W 180 OHM J
RV95	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RV96	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RV98	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
RY02	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RY03	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RY04	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RY126	24011683	CHIP, METAL FILM, 1/20W 68K OHM J
RY127	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RZ40	24011272	CHIP, METAL FILM, 1/20W 2.7K OHM J
RZ41	24011272	CHIP, METAL FILM, 1/20W 2.7K OHM J
RZ42	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RZ43	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RZ44	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RZ45	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
COILS & TRANSFORMERS		
L101	23248035	COIL, CHOKE, TLN3278D
L201	23280022	COIL, PEAKING, TRF4101AZ
L302	23248073	COIL, CHOKE, TLN3299D
L303	23248073	COIL, CHOKE, TLN3299D
L304	23103880	COIL, CHOKE, TEM2011Y
L310	23237975	COIL, PEAKING, TRF4101AC
L311	23237975	COIL, PEAKING, TRF4101AC
L401	23289560	COIL, PEAKING, TRF4560AF
L402	23248248	COIL, CHOKE, TLN3500AH
L403	23103880	COIL, CHOKE, TEM2011Y

Location No.	Parts No.	Description
L406	23248191	COIL, CHOKE, TLN3351AD
L407	23103775	COIL, FERRITE CHOKE, TEM2014
L408	23103775	COIL, FERRITE CHOKE, TEM2014
L409	23237975	COIL, PEAKING, TRF4101AC
L441	23233029	COIL, LINEARITY, TLN2215AC
L462	23231325	COIL, DEFLECTION YOKE, TDY707PS
L463	23231325	COIL, DEFLECTION YOKE, TDY707PS
L464	23231325	COIL, DEFLECTION YOKE, TDY707PS
L472	23102441	MAGNET, CONVERGENCE, MAG1094
L473	23102441	MAGNET, CONVERGENCE, MAG1094
L474	23102441	MAGNET, CONVERGENCE, MAG1094
L500	23103852	COIL, FILTER, TEM2028AH
L501	23289844	COIL, PEAKING, TRF4470AT
L502	23289844	COIL, PEAKING, TRF4470AT
L503	23103852	COIL, FILTER, TEM2028AH
L701	23237975	COIL, PEAKING, TRF4101AC
L702	23261974	COIL, FERRITE BEAD, HC5-035
L704	23103859	COIL, CHOKE, TEM2011
L705	23103859	COIL, CHOKE, TEM2011
L764	23103859	COIL, CHOKE, TEM2011
L765	23103859	COIL, CHOKE, TEM2011
L766	23261974	COIL, FERRITE BEAD, HC5-035
L769	23237975	COIL, PEAKING, TRF4101AC
L780	23237975	COIL, PEAKING, TRF4101AC
L781	23103859	COIL, CHOKE, TEM2011
L782	23103859	COIL, CHOKE, TEM2011
L783	23261974	COIL, FERRITE BEAD, HC5-035
L804	23103894	FILTER, FERRITE BEAD 3.5X4.5 TEM2011AW
L812	23103894	FILTER, FERRITE BEAD 3.5X4.5 TEM2011AW
L830	23280025	COIL, PEAKING, TRF4331AZ
L831	23280022	COIL, PEAKING, TRF4101AZ
L833	23289842	COIL, PEAKING, TRF4220AT
L835	23248087	COIL, CHOKE, TLN3312D
L836	23103894	FILTER, FERRITE BEAD 3.5X4.5 TEM2011AW
L837	23103775	COIL, FERRITE CHOKE, TEM2014
L856	23103894	FILTER, FERRITE BEAD 3.5X4.5 TEM2011AW
L857	23103894	FILTER, FERRITE BEAD 3.5X4.5 TEM2011AW
L858	23103894	FILTER, FERRITE BEAD 3.5X4.5 TEM2011AW
L859	23103894	FILTER, FERRITE BEAD 3.5X4.5 TEM2011AW
L861	23103894	FILTER, FERRITE BEAD 3.5X4.5 TEM2011AW
L862	23248073	COIL, CHOKE, TLN3299D
L863	23103894	FILTER, FERRITE BEAD 3.5X4.5 TEM2011AW
L864	23103894	FILTER, FERRITE BEAD 3.5X4.5 TEM2011AW
L865	23103894	FILTER, FERRITE BEAD 3.5X4.5 TEM2011AW
L866	23248247	COIL, CHOKE, TLN3499AH
L867	23248247	COIL, CHOKE, TLN3499AH
L868	23103894	FILTER, FERRITE BEAD 3.5X4.5 TEM2011AW
L869	23103894	FILTER, FERRITE BEAD 3.5X4.5 TEM2011AW
L870	23248073	COIL, CHOKE, TLN3299D
L871	23248247	COIL, CHOKE, TLN3499AH
L876	23103894	FILTER, FERRITE BEAD 3.5X4.5 TEM2011AW
L880	23280018	COIL, PEAKING, TRF4220AZ
L890	23248247	COIL, CHOKE, TLN3499AH
L891	23248247	COIL, CHOKE, TLN3499AH
L901	23237975	COIL, PEAKING, TRF4101AC
L902	23238714	COIL, PEAKING, TRF4100AJ
L903	23289680	COIL, PEAKING, TRF4680AF
L911	23237987	COIL, PEAKING, TRF4100AC
L912	23289680	COIL, PEAKING, TRF4680AF
L913	23238714	COIL, PEAKING, TRF4100AJ
L915	23289109	COIL, PEAKING, TRF41R0AF
L922	23289680	COIL, PEAKING, TRF4680AF
L923	23238714	COIL, PEAKING, TRF4100AJ
L925	23289109	COIL, PEAKING, TRF41R0AF
L961	23289840	COIL, PEAKING, TRF4100AT

Location No.	Parts No.	Description
L4401	23289470	COIL, PEAKING, TRF4470AF
L4420	23289470	COIL, PEAKING, TRF4470AF
L7701	23103880	COIL, CHOKE, TEM2011Y
L7702	23103880	COIL, CHOKE, TEM2011Y
L7703	23103880	COIL, CHOKE, TEM2011Y
L7704	23103880	COIL, CHOKE, TEM2011Y
L7705	23103880	COIL, CHOKE, TEM2011Y
L7706	23103880	COIL, CHOKE, TEM2011Y
L7708	23103880	COIL, CHOKE, TEM2011Y
L7709	23103880	COIL, CHOKE, TEM2011Y
L7712	23248195	COIL, CHOKE, TLN3441AT
L7712	23248236	COIL, CHOKE, TLN3441AF
L7713	23248195	COIL, CHOKE, TLN3441AT
L7713	23248236	COIL, CHOKE, TLN3441AF
LA01	23289840	COIL, PEAKING, TRF4100AT
LB02	23262281	COIL, IF, TRF1197D
LC22	23103775	COIL, FERRITE CHOKE, TEM2014
LR19	23103898	FILTER, COMMONMODE COIL TEM2030AH
LR20	23103898	FILTER, COMMONMODE COIL TEM2030AH
LR21	23103898	FILTER, COMMONMODE COIL TEM2030AH
LR22	23103845	COIL, COMMONMODE, TEM2030AY
LR23	23103845	COIL, COMMONMODE, TEM2030AY
LR24	23103898	FILTER, COMMONMODE COIL TEM2030AH
LR25	23103898	FILTER, COMMONMODE COIL TEM2030AH
LR26	23103898	FILTER, COMMONMODE COIL TEM2030AH
LV02	23103852	COIL, FILTER, TEM2028AH
LV03	23103852	COIL, FILTER, TEM2028AH
LV04	23103852	COIL, FILTER, TEM2028AH
LV05	23103852	COIL, FILTER, TEM2028AH
LY101	23248229	COIL, CHOKE, TLN3040AC
LY102	23238506	COIL, PEAKING, TRF4229AJ
LY103	23238506	COIL, PEAKING, TRF4229AJ
LY104	23238506	COIL, PEAKING, TRF4229AJ
LZ20	23289100	COIL, PEAKING, TRF4100AF
T400	23224364	TRANSFORMER, FOCUS, TLN2168AH
T401	23224371	TRANSFORMER, HORIZ DRIVE, TLN1080AH
T461B	23960136	SILICONE, TSE3843-W, ADHESIVE
⚠ T461Z	23236685	TRANSFORMER, HORIZ OUTPUT, TFB3089ZD
⚠ T801	23211713	COIL, LINE FILTER, TRF3197AQ
⚠ T802	23211713	COIL, LINE FILTER, TRF3197AQ
⚠ T803	23211698	COIL, LINE FILTER, TRF3218AK
⚠ T862	23217543	TRANSFORMER, CONVERTER, TPW3489AS
SEMICONDUCTORS		
Q201	23114528	TRANSISTOR, 2SC1740S
Q202	23205123	TRANSISTOR, 2SA933ASQ
Q203	23205123	TRANSISTOR, 2SA933ASQ
Q204	23205123	TRANSISTOR, 2SA933ASQ
Q301	23319787	IC, LA7833S
Q301B	70391355	SCREW, 3X8MM
Q302	B0384625	IC, TA8859CP
Q304	B0351501	IC, TA75902P(J)
Q305	23205112	TRANSISTOR, 2SA1980UF-Y(
Q306	B0351501	IC, TA75902P(J)
Q307	23205116	TRANSISTOR, 2SC5343UF-Y(B
Q370	23205116	TRANSISTOR, 2SC5343UF-Y(B
Q371	23205112	TRANSISTOR, 2SA1980UF-Y(
Q372	23205116	TRANSISTOR, 2SC5343UF-Y(B
Q400	23205079	TRANSISTOR, 2SC4686A
Q402	A6064650	TRANSISTOR, 2SK941
Q404	A6374144	TRANSISTOR, 2SC5570(FA)
Q404B	A8012650	INSULATOR, TRANSISTOR, AC263
Q404D	72471082	SCREW, 3X10MM
Q405	23205112	TRANSISTOR, 2SA1980UF-Y(

Location No.	Parts No.	Description
Q406	23205116	TRANSISTOR, 2SC5343UF-Y(B
Q420	23114756	TRANSISTOR, 2SC2482
Q425	23205031	TRANSISTOR, FET, 2SK2920
Q426	B0347500	IC, TA75358P
Q427	70128158	IC, BA10393
Q428	23205116	TRANSISTOR, 2SC5343UF-Y(B
Q503	23205112	TRANSISTOR, 2SA1980UF-Y(
Q504	23205112	TRANSISTOR, 2SA1980UF-Y(
Q510	23000584	IC, TA1316AN
Q601	23000848	IC, TA8258H
Q601B	70391356	SCREW, BITTB3X10 SZN
Q611	A6359871	TRANSISTOR, 2SC3326B
Q612	A6359871	TRANSISTOR, 2SC3326B
Q613	23205116	TRANSISTOR, 2SC5343UF-Y(B
Q614	23114499	TRANSISTOR, RN1404(TE85L
Q615	23314994	TRANSISTOR, 2SA1576A106
Q616	23205112	TRANSISTOR, 2SA1980UF-Y(
Q617	B0350000	IC, TA5458P
Q650	B0350000	IC, TA5458P
Q651	A6359871	TRANSISTOR, 2SC3326B
Q652	A6359871	TRANSISTOR, 2SC3326B
Q653	23205124	TRANSISTOR, 2SA933ASR
Q654	23205124	TRANSISTOR, 2SA933ASR
Q690	A6014041	TRANSISTOR, RN2404
Q691	A6359871	TRANSISTOR, 2SC3326B
Q701	23319808	IC, M5218AP
Q702	23114528	TRANSISTOR, 2SC1740S
Q703	23114817	TRANSISTOR, VCEO=-80V TO92 2 SA817-Y(TEM)
Q704	23114442	TRANSISTOR, VCEO=80V TO92 2SC1627-Y(TEM
Q705	23114442	TRANSISTOR, VCEO=80V TO92 2SC1627-Y(TEM
Q706	23114528	TRANSISTOR, 2SC1740S
Q706	23114817	TRANSISTOR, VCEO=-80V TO92 2SA817-Y(TEM)
Q707	23114437	TRANSISTOR, 2SC752GTM-Y
Q707	23205109	TRANSISTOR, KTC2028-Y
Q707B	23035310	SCREW, BTB3X10SZN
Q708	23205107	TRANSISTOR, KTA1049-Y
Q708B	23035310	SCREW, BTB3X10SZN
Q709	23114528	TRANSISTOR, 2SC1740S
Q710	23114530	TRANSISTOR, 2SA933S
Q711	23205075	TRANSISTOR, 2SA1930
Q711	23319808	IC, M5218AP
Q711B	70391355	SCREW, 3X8MM
Q712	23114528	TRANSISTOR, 2SC1740S
Q712	23205076	TRANSISTOR, 2SC5171
Q712B	70391355	SCREW, 3X8MM
Q713	23114817	TRANSISTOR, VCEO=-80V TO92 2SA817-Y(TEM)
Q714	23114442	TRANSISTOR, VCEO=80V TO92 2SC1627-Y(TEM
Q715	23114442	TRANSISTOR, VCEO=80V TO92 2SC1627-Y(TEM
Q716	23114817	TRANSISTOR, VCEO=-80V TO92 2SA817-Y(TEM)
Q717	23205109	TRANSISTOR, KTC2028-Y
Q717B	23035310	SCREW, BTB3X10SZN
Q718	23205107	TRANSISTOR, KTA1049-Y
Q718B	23035310	SCREW, BTB3X10SZN
Q719	23114528	TRANSISTOR, 2SC1740S
Q720	23114528	TRANSISTOR, 2SC1740S
Q722	23114528	TRANSISTOR, 2SC1740S

Location No.	Parts No.	Description
Q723	23114817	TRANSISTOR, VCEO=-80V TO92 2SA817-Y(TEM)
Q724	23114442	TRANSISTOR, VCEO=80V TO92 2SC1627-Y(TEM
Q725	23114442	TRANSISTOR, VCEO=80V TO92 2SC1627-Y(TEM
Q726	23114817	TRANSISTOR, VCEO=-80V TO92 2SA817-Y(TEM)
Q727	23205109	TRANSISTOR, KTC2028-Y
Q727B	23035310	SCREW, BTB3X10SZN
Q728	23205107	TRANSISTOR, KTA1049-Y
Q728B	23035310	SCREW, BTB3X10SZN
Q732	23114528	TRANSISTOR, 2SC1740S
Q733	23114817	TRANSISTOR, VCEO=-80V TO92 2SA817-Y(TEM)
Q734	23114442	TRANSISTOR, VCEO=80V TO92 2SC1627-Y(TEM
Q735	23114442	TRANSISTOR, VCEO=80V TO92 2SC1627-Y(TEM
Q736	23114817	TRANSISTOR, VCEO=-80V TO92 2SA817-Y(TEM)
Q737	23205109	TRANSISTOR, KTC2028-Y
Q737B	23035310	SCREW, BTB3X10SZN
Q738	23205107	TRANSISTOR, KTA1049-Y
Q738B	23035310	SCREW, BTB3X10SZN
Q741	23319808	IC, M5218AP
Q742	23114528	TRANSISTOR, 2SC1740S
Q743	23114817	TRANSISTOR, VCEO=-80V TO92 2SA817-Y(TEM)
Q744	23114442	TRANSISTOR, VCEO=80V TO92 2SC1627-Y(TEM
Q745	23114442	TRANSISTOR, VCEO=80V TO92 2SC1627-Y(TEM
Q746	23114817	TRANSISTOR, VCEO=-80V TO92 2SA817-Y(TEM)
Q747	23205109	TRANSISTOR, KTC2028-Y
Q747B	23035310	SCREW, BTB3X10SZN
Q748	23205107	TRANSISTOR, KTA1049-Y
Q748B	23035310	SCREW, BTB3X10SZN
Q749	23114442	TRANSISTOR, VCEO=80V TO92 2SC1627-Y(TEM
Q750	23114442	TRANSISTOR, VCEO=80V TO92 2SC1627-Y(TEM
Q751	23114817	TRANSISTOR, VCEO=-80V TO92 2SA817-Y(TEM)
Q752	23114528	TRANSISTOR, 2SC1740S
Q753	23114817	TRANSISTOR, VCEO=-80V TO92 2SA817-Y(TEM)
Q754	23904268	IC, PQ05RR1
Q756	23318840	IC, AN79M05F
Q756B	70391356	SCREW, BITTB3X10 SZN
Q760	23114530	TRANSISTOR, 2SA933S
Q760	23205109	TRANSISTOR, KTC2028-Y
Q760B	23035310	SCREW, BTB3X10SZN
Q761	23205075	TRANSISTOR, 2SA1930
Q761	B0349260	IC, TA75393P
Q761B	70391355	SCREW, 3X8MM
Q762	B0470188	IC, TC4066BP(N)
Q763	23114735	TRANSISTOR, 2SA102-Y(C)
Q764	B0485895	IC, TC74HC14AP
Q765	23205107	TRANSISTOR, KTA1049-Y
Q765B	23035310	SCREW, BTB3X10SZN
Q767	B0470188	IC, TC4066BP(N)
Q769	23114528	TRANSISTOR, 2SC1740S
Q771	23205076	TRANSISTOR, 2SC5171

Location No.	Parts No.	Description
Q771B	70391355	SCREW, 3X8MM
Q772	23205112	TRANSISTOR, 2SA1980UF-Y(
Q773	23205116	TRANSISTOR, 2SC5343UF-Y(B
Q774	23205116	TRANSISTOR, 2SC5343UF-Y(B
Q775	23114817	TRANSISTOR, VCEO=-80V TO92 2SA817-Y(TEM)
Q776	23114501	TRANSISTOR, RN1402
Q779	23114528	TRANSISTOR, 2SC1740S
Q781	23114528	TRANSISTOR, 2SC1740S
Q782	23114530	TRANSISTOR, 2SA933S
Q783	23114528	TRANSISTOR, 2SC1740S
Q784	23205075	TRANSISTOR, 2SA1930
Q784B	70391355	SCREW, 3X8MM
Q785	23205076	TRANSISTOR, 2SC5171
Q785B	70391355	SCREW, 3X8MM
Q790	23205014	TRANSISTOR, 2SC4667-O
Q791	23205112	TRANSISTOR, 2SA1980UF-Y(
Q792	23205116	TRANSISTOR, 2SC5343UF-Y(B
Q793	23205031	TRANSISTOR, FET, 2SK2920
Q794	23205014	TRANSISTOR, 2SC4667-O
Q795	23205112	TRANSISTOR, 2SA1980UF-Y(
Q796	23205116	TRANSISTOR, 2SC5343UF-Y(B
Q797	23205098	TRANSISTOR, FET, 2SJ377
Q798	23205116	TRANSISTOR, 2SC5343UF-Y(B
Q801	23135028	IC, STR-Z4479
Q811	A6002060	TRANSISTOR, RN1206
Q812	23114528	TRANSISTOR, 2SC1740S
Q821	23114459	TRANSISTOR, RN1205
Q824	23114528	TRANSISTOR, 2SC1740S
Q830	23135004	IC, STR83145A(LF501)
Q830	23905977	IC, PQ09RD11
Q830B	70391355	SCREW, 3X8MM
Q830B	70391355	SCREW, 3X8MM
Q831	23114528	TRANSISTOR, 2SC1740S
Q831	23905977	IC, PQ09RD11
Q831B	70391355	SCREW, 3X8MM
Q832	23114530	TRANSISTOR, 2SA933S
Q832	23905976	IC, PQ05RD11
Q832B	70391355	SCREW, 3X8MM
Q833	23000140	IC, MM1437AS
Q833	23905976	IC, PQ05RD11
Q833B	70391355	SCREW, 3X8MM
Q834	23000763	IC, PQ05RD21
Q834B	70391355	SCREW, 3X8MM
Q835	23114733	TRANSISTOR, 2SC2655-Y
⚠ Q862	A8643112	IC, PHOTO COUPLER
Q902	23114528	TRANSISTOR, 2SC1740S
Q912	23114528	TRANSISTOR, 2SC1740S
Q913	23114530	TRANSISTOR, 2SA933S
Q914	23114528	TRANSISTOR, 2SC1740S
Q915	23114528	TRANSISTOR, 2SC1740S
Q916	23114530	TRANSISTOR, 2SA933S
Q917	23114530	TRANSISTOR, 2SA933S
Q918	23114528	TRANSISTOR, 2SC1740S
Q919	23114528	TRANSISTOR, 2SC1740S
Q920	23114528	TRANSISTOR, 2SC1740S
Q922	23114528	TRANSISTOR, 2SC1740S
Q961	23114528	TRANSISTOR, 2SC1740S
Q962	23114530	TRANSISTOR, 2SA933S
Q971	23114530	TRANSISTOR, 2SA933S
Q972	23114530	TRANSISTOR, 2SA933S
Q973	23114530	TRANSISTOR, 2SA933S
Q974	23114528	TRANSISTOR, 2SC1740S
Q975	23114437	TRANSISTOR, 2SC752GTM-Y
Q2100	23205112	TRANSISTOR, 2SA1980UF-Y(

Location No.	Parts No.	Description
Q3103	23205112	TRANSISTOR, 2SA1980UF-Y(
Q4420	23000370	IC, TA1318N
Q4430	23114733	TRANSISTOR, 2SC2655-Y
Q4451	23205116	TRANSISTOR, 2SC5343UF-Y(B
Q4452	A6004061	TRANSISTOR, RN1406
Q4453	A6004061	TRANSISTOR, RN1406
Q4454	A6004061	TRANSISTOR, RN1406
Q4460	23205116	TRANSISTOR, 2SC5343UF-Y(B
Q8610	B0349261	IC, TA75393P CN
Q8611	A8643112	IC, PHOTO COUPLER
Q8612	23114528	TRANSISTOR, 2SC1740S
QA01	23000934	IC, CXP750010-166
QA02	23906642	IC, AT24C64-10PC
QA05	23205014	TRANSISTOR, 2SC4667-O
QA06	23314993	TRANSISTOR, 2SC4081 Q
QB01	23114530	TRANSISTOR, 2SA933S
QB02	23114530	TRANSISTOR, 2SA933S
QB03	23114459	TRANSISTOR, RN1205
QB03	23114528	TRANSISTOR, 2SC1740S
QB06	23205112	TRANSISTOR, 2SA1980UF-Y(
QB42	23205112	TRANSISTOR, 2SA1980UF-Y(
QB43	23205116	TRANSISTOR, 2SC5343UF-Y(B
QB81	A6359871	TRANSISTOR, 2SC3326B
QB82	A6359871	TRANSISTOR, 2SC3326B
QB83	23314994	TRANSISTOR, 2SA1576A106
QB92	23205116	TRANSISTOR, 2SC5343UF-Y(B
QB93	23314994	TRANSISTOR, 2SA1576A106
QB94	23314994	TRANSISTOR, 2SA1576A106
QB95	23314994	TRANSISTOR, 2SA1576A106
QB96	23314994	TRANSISTOR, 2SA1576A106
QD01	23000381	IC, CXA2021S
QD21	23906596	IC, BA4558
QD41	23000725	IC, NJM2700L
QD42	A6059430	TRANSISTOR, FET, 36059430
QD43	A6059430	TRANSISTOR, FET, 36059430
QD44	23114460	TRANSISTOR, RN1204
QR35	23205116	TRANSISTOR, 2SC5343UF-Y(B
QR36	23205116	TRANSISTOR, 2SC5343UF-Y(B
QR38	23205116	TRANSISTOR, 2SC5343UF-Y(B
QR40	23205116	TRANSISTOR, 2SC5343UF-Y(B
QD101	B0385647	IC, TA1217AN
QD102	23114460	TRANSISTOR, RN1204
QD103	23114460	TRANSISTOR, RN1204
QS01	A6359871	TRANSISTOR, 2SC3326B
QS02	A6359871	TRANSISTOR, 2SC3326B
QS03	23205116	TRANSISTOR, 2SC5343UF-Y(B
QS04	23205116	TRANSISTOR, 2SC5343UF-Y(B
QS07	A6014041	TRANSISTOR, RN2404
QS08	A6359871	TRANSISTOR, 2SC3326B
QS09	23205116	TRANSISTOR, 2SC5343UF-Y(B
QS10	A6359871	TRANSISTOR, 2SC3326B
QS11	23205116	TRANSISTOR, 2SC5343UF-Y(B
QV01	23000369	IC, MM1495XD
QV02	23205116	TRANSISTOR, 2SC5343UF-Y(B
QV07	23205116	TRANSISTOR, 2SC5343UF-Y(B
QV09	23205112	TRANSISTOR, 2SA1980UF-Y(
QV11	23205116	TRANSISTOR, 2SC5343UF-Y(B
QV13	23114433	TRANSISTOR, 2SC1815-Y
QV51	23205116	TRANSISTOR, 2SC5343UF-Y(B
QY10	23314994	TRANSISTOR, 2SA1576A106
QY180	23114499	TRANSISTOR, RN1404(TE85L
QY185	23114499	TRANSISTOR, RN1404(TE85L
QZ03	23205112	TRANSISTOR, 2SA1980UF-Y(
QZ10	23205112	TRANSISTOR, 2SA1980UF-Y(
D101	23316755	DIODE, ZENER, MTZJ33C

Location No.	Parts No.	Description
D210	23118621	DIODE, ZENER, RD10ESA B3
D211	23118621	DIODE, ZENER, RD10ESA B3
D212	23118621	DIODE, ZENER, RD10ESA B3
D213	23357172	DIODE, ZENER, UDZS10B
D214	23357172	DIODE, ZENER, UDZS10B
D216	23357172	DIODE, ZENER, UDZS10B
D217	23357172	DIODE, ZENER, UDZS10B
D218	23357172	DIODE, ZENER, UDZS10B
D301	23357165	DIODE, ZENER, UDZS7.5B
D302	23118094	DIODE, EU2A
D303	23118041	DIODE, MA111
D304	23316794	DIODE, SC570A
D305	23118822	DIODE, ERB12-02
D306	23118822	DIODE, ERB12-02
D308	23118041	DIODE, MA111
D370	23118041	DIODE, MA111
D401	23118094	DIODE, EU2A
D402	23118094	DIODE, EU2A
D404	23316254	DIODE, ERC06-15
D406	A7978850	DIODE, S5295G
D411	23118275	DIODE, ZENER, RD18MB2
D412	23118707	DIODE, RP-1H
D413	23118707	DIODE, RP-1H
D414	23118094	DIODE, EU2A
D415	23118094	DIODE, EU2A
D420	23118859	DIODE, 1SS133
D421	23118094	DIODE, EU2A
D425	23118094	DIODE, EU2A
D426	23118275	DIODE, ZENER, RD18MB2
D461	23224366	DIODE, FMQ-3GU
D473	23115774	DIODE, ZENER, RD6.2E(FA-1)
D502	23118041	DIODE, MA111
D505	23118859	DIODE, 1SS133
D520	23316647	DIODE, ZENER, MTZJ2.0B
D601	23118041	DIODE, MA111
D602	23118041	DIODE, MA111
D603	23118041	DIODE, MA111
D604	23118041	DIODE, MA111
D605	23118041	DIODE, MA111
D606	23118041	DIODE, MA111
D608	23118041	DIODE, MA111
D609	23118041	DIODE, MA111
D610	23118041	DIODE, MA111
D611	23118041	DIODE, MA111
D628	23118269	DIODE, ZENER, RD22MB2
D651	23118041	DIODE, MA111
D652	23118041	DIODE, MA111
D653	23118041	DIODE, MA111
D654	23118041	DIODE, MA111
D704	23118041	DIODE, MA111
D704	23118859	DIODE, 1SS133
D705	23118041	DIODE, MA111
D705	23118859	DIODE, 1SS133
D714	23118041	DIODE, MA111
D715	23118041	DIODE, MA111
D715	23118859	DIODE, 1SS133
D721	23118859	DIODE, 1SS133
D724	23118041	DIODE, MA111
D725	23118041	DIODE, MA111
D734	23118041	DIODE, MA111
D735	23118041	DIODE, MA111
D744	23118041	DIODE, MA111
D745	23118041	DIODE, MA111
D754	23118041	DIODE, MA111
D755	23118041	DIODE, MA111

Location No.	Parts No.	Description
D760	23118041	DIODE, MA111
D761	23118350	DIODE, ZENER, RD4.7MB1
D761	23118859	DIODE, 1SS133
D762	23118859	DIODE, 1SS133
D762	23357168	DIODE, ZENER, UDZS6.2B
D763	23118041	DIODE, MA111
D763	23118859	DIODE, 1SS133
D764	23118859	DIODE, 1SS133
D764	23118859	DIODE, 1SS133
D781	23118859	DIODE, 1SS133
D782	23118859	DIODE, 1SS133
D783	23118859	DIODE, 1SS133
D784	23118859	DIODE, 1SS133
D798	23118859	DIODE, 1SS133
D799	23118859	DIODE, 1SS133
D803	23316787	DIODE, D15XB60H
D803B	70391355	SCREW, 3X8MM
D804	23118537	DIODE, ZENER, RD6.2ES B3
D805	23118518	DIODE, ZENER, RD9.1ES
D806	23118615	DIODE, ZENER, RD27ES B3
D809	23118499	DIODE, ZENER, RD18ESA B2
D810	23118615	DIODE, ZENER, RD27ES B3
D811	23118057	DIODE, AG01A
D812	23118516	DI0DE, ZENER, RD9.1ES B3
D813	23118060	DIODE, AL01Z
D814	23118529	DIODE, ZENER, RD5.6ES B2
D816	24000656	VARISTOR, TNR15G471K
D819	23118859	DIODE, 1SS133
D820	23118515	DIODE, ZENER, RD11ESA B1
D821	23118516	DI0DE, ZENER, RD9.1ES B3
D822	23118859	DIODE, 1SS133
D823	23118529	DIODE, ZENER, RD5.6ES B2
D830	23115532	DIODE, ERB12-01
D831	23115532	DIODE, ERB12-01
D831	23118621	DIODE, ZENER, RD10ESA B3
D832	23115532	DIODE, ERB12-01
D832	23118621	DIODE, ZENER, RD10ESA B3
D833	23115532	DIODE, ERB12-01
D833	23118532	DIODE, ZENER, RD5.1ES
D834	23115532	DIODE, ERB12-01
D834	23118529	DIODE, ZENER, RD5.6ES B2
D835	23316721	DIODE, ZENER, MTZJ13A
D835	23357207	DIODE, LN1WBA60
D836	A7568200	DIODE, 1S1832
D837	23118525	DIODE, ZENER, RD6.8ES B3
D838	23118536	DIODE, ZENER, RD4.7ES B1
D840	23316399	DIODE, EL1Z
D841	23316714	DIODE, RL2Z
D842	23316714	DIODE, RL2Z
D843	23316714	DIODE, RL2Z
D845	23316399	DIODE, EL1Z
D850	23118499	DIODE, ZENER, RD18ESA B2
D854	23357214	DIODE, D4SBS4
D855	23357215	DIODE, D4SBS6
D855B	70391355	SCREW, 3X8MM
D856	23357216	DIODE, D4SBL20U
D858	23118859	DIODE, 1SS133
D859	23316768	DIODE, FMB-26L
D859B	70391355	SCREW, 3X8MM
D860	23357217	DIODE, D4SBL40
D860B	70391355	SCREW, 3X8MM
D861	23118537	DIODE, ZENER, RD6.2ES B3
D862	23118859	DIODE, 1SS133
D863	23118859	DIODE, 1SS133
D891	23118859	DIODE, 1SS133

Location No.	Parts No.	Description
D892	23316662	DIODE, ZENER, MTZJ4.3A
D901	23118859	DIODE, 1SS133
D902	23118859	DIODE, 1SS133
D911	23118859	DIODE, 1SS133
D912	23118859	DIODE, 1SS133
D921	23118859	DIODE, 1SS133
D922	23118859	DIODE, 1SS133
D924	23118859	DIODE, 1SS133
D925	23118859	DIODE, 1SS133
D931	23118859	DIODE, 1SS133
D932	23118859	DIODE, 1SS133
D933	23118859	DIODE, 1SS133
D934	23118859	DIODE, 1SS133
D936	23115337	DIODE, 1S1834
D941	23118859	DIODE, 1SS133
D942	23118859	DIODE, 1SS133
D943	23118859	DIODE, 1SS133
D945	23115337	DIODE, 1S1834
D946	23118859	DIODE, 1SS133
D963	23118859	DIODE, 1SS133
D964	23118859	DIODE, 1SS133
D965	23118859	DIODE, 1SS133
D966	23118859	DIODE, 1SS133
D967	23115337	DIODE, 1S1834
D3402	23118041	DIODE, MA111
D4430	23115532	DIODE, ERB12-01
D4431	23316691	DIODE, ZENER, MTZJ10C
D4451	23115532	DIODE, ERB12-01
D4452	23357170	DIODE, ZENER, UDZS8.2B
D4453	23118041	DIODE, MA111
D4460	23118041	DIODE, MA111
D7703	23118041	DIODE, MA111
D7705	23118041	DIODE, MA111
D7706	23118041	DIODE, MA111
D7707	23118041	DIODE, MA111
D7708	23118041	DIODE, MA111
D7710	23118859	DIODE, 1SS133
D7711	23316675	DIODE, ZENER, MTZJ6.2B
D7725	23118041	DIODE, MA111
D7732	23316766	DIODE, RU2YX
D7733	23118275	DIODE, ZENER, RD18MB2
D7734	23118275	DIODE, ZENER, RD18MB2
D7735	23316766	DIODE, RU2YX
D7736	23118041	DIODE, MA111
D8610	23115774	DIODE, ZENER, RD6.2E(FA-1)
D8611	23118610	DIODE, ZENER, RD30ES B4
D8612	23118613	DIODE, ZENER, RD30ESA B1
D8613	23118537	DIODE, ZENER, RD6.2ES B3
D8614	23118537	DIODE, ZENER, RD6.2ES B3
D8615	23118859	DIODE, 1SS133
DA42	23316673	DIODE, ZENER, MTZJ5.6C
DA50	23316673	DIODE, ZENER, MTZJ5.6C
DB01	23358493	DIODE, LED, SPR54MVWFLMN, RED-GRN
DB03	23358522	DIODE, LED, SIR-56SB3F
DB05	23358569	DIODE, LED, LAMP BLUE, SELU5E20C
DB06	23358569	DIODE, LED, LAMP BLUE, SELU5E20C
DB07	23358569	DIODE, LED, LAMP BLUE, SELU5E20C
DB08	23358569	DIODE, LED, LAMP BLUE, SELU5E20C
DB10	23316669	DIODE, ZENER, MTZJ5.1B
DB20	23316691	DIODE, ZENER, MTZJ10C
DB21	23316691	DIODE, ZENER, MTZJ10C
DR61	23118041	DIODE, MA111
DR62	23118041	DIODE, MA111
DR63	23118041	DIODE, MA111
DV10	23118859	DIODE, 1SS133

Location No.	Parts No.	Description
MISCELLANEOUS		
B107	23711305	SCREW, 3X4.5MM
B224	23035412	SCREW, BTB4X12SZN
B225	23035412	SCREW, BTB4X12SZN
B230	23037312	SCREW, BTBW3X12SZN
B233	23035412	SCREW, BTB4X12SZN
B234	23030937	SCREW, 3X12
BB20A	23903022	CONNECTOR, BASE B-B 8P 2.5 JST
BB20B	23903022	CONNECTOR, BASE B-B 8P 2.5 JST
BB20C	23368627	CONNECTOR, BRIDGE B-B 8P 2.5JST 08TM-2.5FJ-E
BB21A	23713013	BASE SOCKET 16P 1.5
BB21B	23713014	CONNECTOR, BRIDGE PLUG 16P 1.5
BB23	23902749	CONNECTOR, B-B, 6P
BB23B	23368517	CONNECTOR, B-B, 6P
BB24A	23713013	BASE SOCKET 16P 1.5
BB24B	23713014	CONNECTOR, BRIDGE PLUG 16P 1.5
BB80A	23713013	BASE SOCKET 16P 1.5
BB80B	23713014	CONNECTOR, BRIDGE PLUG 16P 1.5
BB82A	23713013	BASE SOCKET 16P 1.5
BB82B	23713014	CONNECTOR, BRIDGE PLUG 16P 1.5
BB85A	23903022	CONNECTOR, BASE B-B 8P 2.5 JST
BB85B	23903022	CONNECTOR, BASE B-B 8P 2.5 JST
BB85C	23368627	CONNECTOR, BRIDGE B-B 8P 2.5JST 08TM-2.5FJ-E
E906	23466958	PRESSURE VALVE
E916	23466958	PRESSURE VALVE
E925	23466958	PRESSURE VALVE
E935	23710134	SCREW, PP4X0.7X8 SBN
E943	23710134	SCREW, PP4X0.7X8 SBN
E956	23710134	SCREW, PP4X0.7X8 SBN
E966	23960136	SILICONE, TSE3843-W, ADHESIVE
E976	23960136	SILICONE, TSE3843-W, ADHESIVE
E986	23960136	SILICONE, TSE3843-W, ADHESIVE
⚠ F801	23144458	FUSE, 5.0A 250V
F801A	23165433	FUSE HOLDER, 5.2 SOC
F801B	23165433	FUSE HOLDER, 5.2 SOC
G615	23238714	COIL, PEAKING, TRF4100AJ
G616	23238714	COIL, PEAKING, TRF4100AJ
GJ01	24000445	CHIP JUMPER, 1608TYPE
GJ02	24000445	CHIP JUMPER, 1608TYPE
GJ02	24000445	CHIP JUMPER, 1608TYPE
GJ03	24000445	CHIP JUMPER, 1608TYPE
GJ06	24000445	CHIP JUMPER, 1608TYPE
GJ68	24000445	CHIP JUMPER, 1608TYPE
GJ100	24000445	CHIP JUMPER, 1608TYPE
GJ116	24000445	CHIP JUMPER, 1608TYPE
GJ117	24000445	CHIP JUMPER, 1608TYPE
GJ118	24000445	CHIP JUMPER, 1608TYPE
GJ119	24000445	CHIP JUMPER, 1608TYPE
GJ768	24000445	CHIP JUMPER, 1608TYPE
GJ769	24000445	CHIP JUMPER, 1608TYPE
GJ770	24000445	CHIP JUMPER, 1608TYPE
GJ771	24000445	CHIP JUMPER, 1608TYPE
GJ775	24000445	CHIP JUMPER, 1608TYPE
GJ776	24000445	CHIP JUMPER, 1608TYPE
GJ777	24000445	CHIP JUMPER, 1608TYPE
GJ778	24000445	CHIP JUMPER, 1608TYPE
HY02	23148327	MODULE, MVCM13, MULTI MONO MVCM13(PIP)
JP601	24000445	CHIP JUMPER, 1608TYPE
JP602	24000445	CHIP JUMPER, 1608TYPE
JP604	24000445	CHIP JUMPER, 1608TYPE
JR01	24000445	CHIP JUMPER, 1608TYPE
JR02	24000445	CHIP JUMPER, 1608TYPE

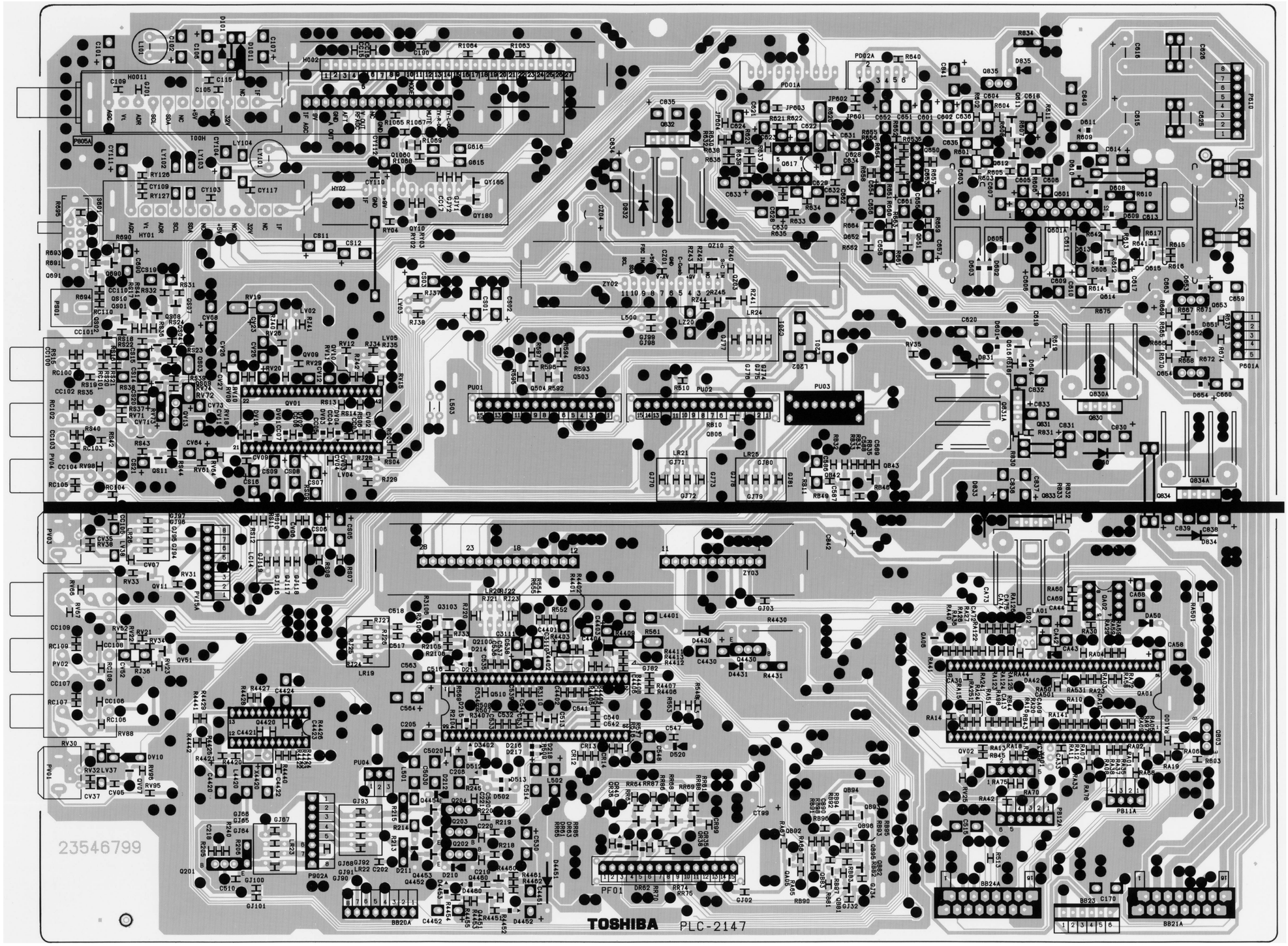
Location No.	Parts No.	Description
KB01	23000852	IC, REMOCON RECEIVER, PIC-37043TE2
P661	23363607	JACK, HEAD PHONE, 3.5MM
P708	23902655	CONNECTOR, 15P
P709	23902655	CONNECTOR, 15P
P713	23164787	CONNECTOR, PLUG, 7P
P714	23164787	CONNECTOR, PLUG, 7P
P715	23164787	CONNECTOR, PLUG, 7P
P800	23368013	CONNECTOR, PLUG, 2P 11.88MM W VT-JST
⚠ P801	23372023	POWER CORD, UK (43A9UE)
⚠ P801	23372026	POWER CORD (43A9UA)
PF01	23902655	CONNECTOR, 15P
PS01	23365470	JACK, PIN 1P MNS MTJ-032-03B-19
PU01	23902655	CONNECTOR, 15P
PU02	23902655	CONNECTOR, 15P
PU03	23902852	SOCKET, B-B, 7P
PV01	23365818	JACK, SVHS, HOSIDEN, TCS7719
PV02	23365469	JACK, PIN(9P) YKC21-2971
PV03	23365818	JACK, SVHS, HOSIDEN, TCS7719
PV04	23365466	JACK, PIN 2E+3R:OFF+3L:ON, YKC21-2952
PV40	23365911	CONNECTOR, JACK
S601	23344456	SWITCH, SLIDE SK22F28G9A MORNI SK22F28G9A
⚠ S801	23145534	SWITCH, POWER SWITCH
SA01	23145226	SWITCH, 1C1P, PUSH
SA02	23145226	SWITCH, 1C1P, PUSH
SA03	23145226	SWITCH, 1C1P, PUSH
SA04	23145226	SWITCH, 1C1P, PUSH
SA06	23145226	SWITCH, 1C1P, PUSH
SA07	23145226	SWITCH, 1C1P, PUSH
⚠ SR80	23146574	RELAY, DLS5D1-O(M) 0.15W
⚠ SR81	23146574	RELAY, DLS5D1-O(M) 0.15W
V901A	23903148	SOCKET, ISH-44S-E ICE #5
V902A	23903148	SOCKET, ISH-44S-E ICE #5
V903A	23903148	SOCKET, ISH-44S-E ICE #5
W661	23351176	SPEAKER, SPK-1420AF, 100X100 16-OHM 10W
W662	23351176	SPEAKER, SPK-1420AF, 100X100 16-OHM 10W
W663	23351175	SPEAKER, SPK-1419AF, WF 160X160 8-OHM 20W
W664	23351175	SPEAKER, SPK-1419AF, WF 160X160 8-OHM 20W
X4402	23153721	CERAMIC RESONATOR, 503KHZ
X4420	23153721	CERAMIC RESONATOR, 503KHZ
XA01	23153497	CERAMIC RESONATER, TCR1080AM
⚠ Z410	23110849	FOCUS PACK
Z410A	23505177	CABLE, FOCUS
⚠ Z450	24083013	COMPOSITE PARTS, CR-BLOCK, TPA5010AH
Z801	23148734	MODULE, PROTECTOR, HIC1026A
⚠ Z803	23148755	MODULE, DC/DC CONVERTER SLP-MI-06
Z831	23144603	PROTECTOR, PRT SERIES, DC60V/AC90V 1000MA
Z853	23144609	PROTECTOR, PRT SERIES, DC60V/AC90V 5000MA
Z854	23144609	PROTECTOR, PRT SERIES, DC60V/AC90V 5000MA
Z856	23144605	PROTECTOR, PRT SERIES, DC60V/AC90V 2000MA
Z857	23144607	PROTECTOR, PRT SERIES, DC60V/AC90V 3150MA
Z858	23144608	PROTECTOR, PRT SERIES, DC60V/AC90V 4000MA
Z859	23144608	PROTECTOR, PRT SERIES, DC60V/AC90V 4000MA

Location No.	Parts No.	Description
Z860	23144479	PROTECTOR, PROTECTOR 125V 4.0A PRF
Z861	23144605	PROTECTOR, PRT SERIES, DC60V/AC90V 2000MA
Z862	23144604	PROTECTOR, PRT SERIES DC60V/AC90V 1
Z863	23144604	PROTECTOR, PRT SERIES DC60V/AC90V 1
ZC01	23148784	MODULE, D-CONVER, MDCC11
ZY01	23148773	MODULE, VIDEO CHROMA PIP, MVPC01
ZY02	23148747	MODULE, MYCJ32, 3D-YCS COMB
ZY03	23148783	MODULE, SCAN CONVERTER, DFS+PROG
ZY04	23148794	MODULE, TEXT MODULE P2 SH, M-TEXT-P2S
PC BOARD ASSEMBLIES		
* M031Z	23786564	CRT-D/R BOARD, PD0202-1
* M032Z	23786565	CRT-D/G BOARD, PD0202-2
* M033Z	23786566	CRT-D/B BOARD, PD0202-3
* M034Z	23786567	SVM-G BOARD, PD0202-4
* M035Z	23786568	SVM-R BOARD, PD0202-5
* M036Z	23786569	SVM-B BOARD, PD0202-6
* U401	23786407	DEF/CONV BOARD, PD0181
* U601	23787082	WOW BOARD, PD0453
* U801	23786410	POWER BOARD, PD0184
* U901	23786408	SIGNAL BOARD, PD0182
* UA02	23786349	FRONT BOARD, PD0147
PICTURE TUBE		
⚠ V901R	23008264	COUPLING 43R, 43A7DE
⚠ V902G	23008265	COUPLING 43G, 43A7DE
⚠ V903B	23008816	COUPLING 43B A9, 43A9UE
TUNER		
H0011	23321425	TUNER, EC954W1
HY01	23321384	TUNER, ECA321LX2, ASIA MLT IICPLL P-J, ALPS
ACCESSORIES		
K902	23306425	REMOCON HAND UNIT, CT-90089
Y101C	23565367	OWNER'S MANUAL, MONDAR/CANTON 43A9UE/43A9UA
Y101E	23565365	OWNER'S MANUAL, ENGLISH, 43A9UE/43A9UA
Y105	23436569	CASTER UKEZARA, 40W30E
Y109	23943846	BAG, POLY
CABINET PARTS		
A101	23411604	CABINET, WOOD CABINET 43A9UE;A01508
A113	23845554	WIRE CLIP
A151	23064582	CARTON, CASE BOTTOM 43A7DE:S1301D
A152	23946232	PACKING, BOTTOM PACKING 43A7DE:S1301D
A153	23531107	PACKING, PROTECTIVE SHEET 43G9UXE;E1381D152
A171	23436570	CASTER, 40W30E
A172	23436768	HANDLE, HANDLE 43A7DE;B01504
A201	23540834	COVER, FRONT PANEL ASSY 43A9UE;S1301E
A202	23802307	CONTROL BOX, 43A7DE
A203	23540739	COVER, FRONT COVER ASSY 43A7DE;S1301E
A204	23540838	COVER, FRONT GRILE ASSY 43A9UE;S1301E
A207	23077253	BRACKET, SCREEN, 43A7C
A208	23077254	BRACKET, SCREEN, 43A7C
A241	23445547	BUTTON, POWER BUTTON 43A9UE;C01504
A242	23836492	SPRING

Location No.	Parts No.	Description
A401	23540755	COVER, MIRROR COVER 43A7DE;A01508
⚠ A402	23540847	COVER, BACK BOARD 43A9UE
A431	23845800	WIRE HOLDER, NYLON66 D6.8
A432	23035412	SCREW, BTB4X12SZN
A504	23037312	SCREW, BTBW3X12SZN
A505	72471068	SCREW, 4X12
A506	23035412	SCREW, BTBW3X12SZN
A512	23035412	SCREW, BTBW3X12SZN
A521	23035412	SCREW, BTBW3X12SZN
A701	23064600	CARTON, CASE TOP (43A9UE)
A701	23064601	CARTON, CASE TOP (43A9UA)
A702	23946231	PACKING, TOP PACKING 43A7DE:S1301D
A703	23845450	JOINT
A706	23943008	POLYETHYLENE BAG
K501	23311923	SCREEN, 43KLA LENTICULAR SHEET SCREEN43KLAL
K502	23311924	SCREEN, 43KLA FRESNEL SHEET SCREEN43KLAF
K601	23430601	MIRROR, 43J 860/580x600/75x3

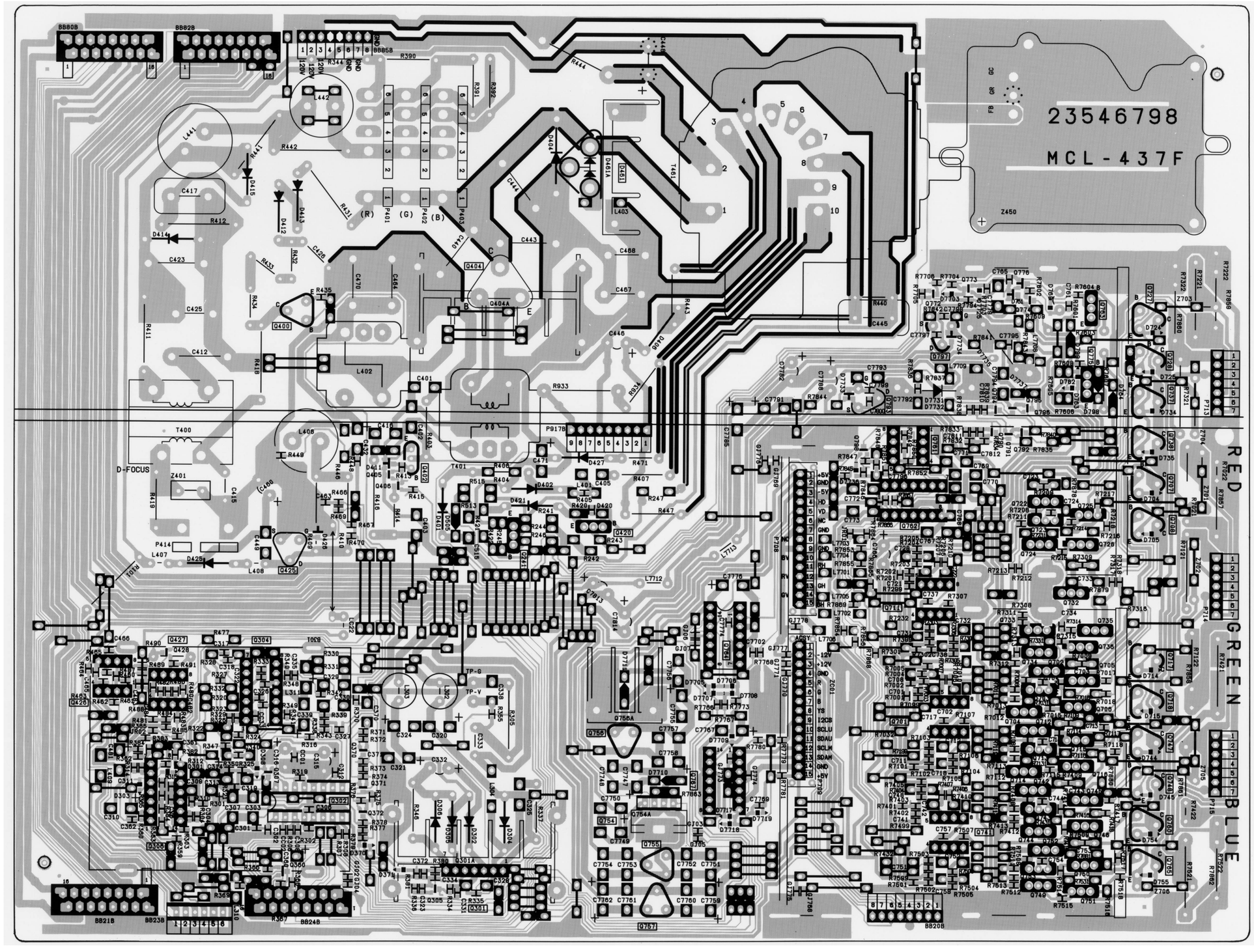
SIGNAL BOARD PD0182

BOTTOM (FOIL) SIDE



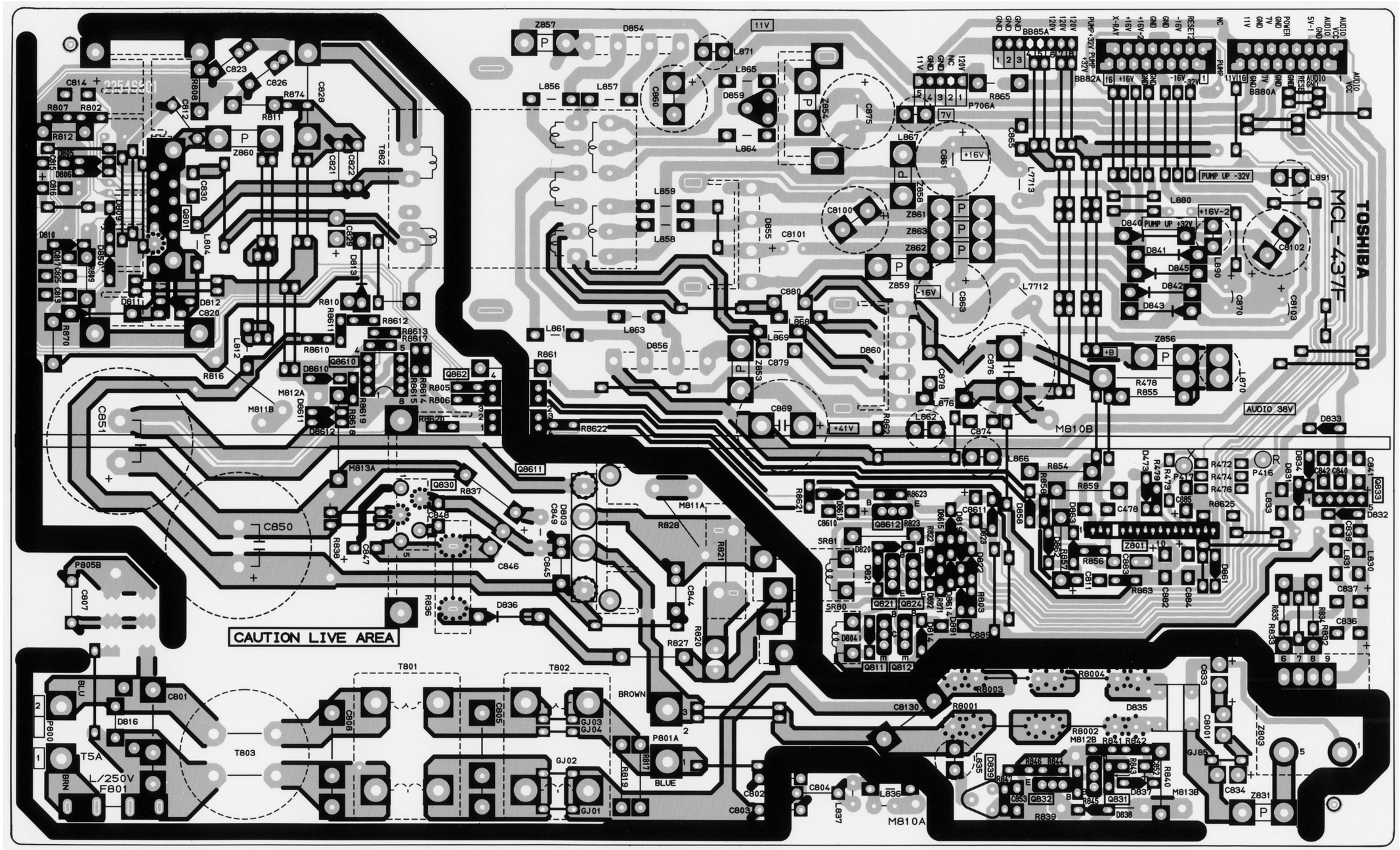
DEF/CONV BOARD PD0181

BOTTOM (FOIL) SIDE



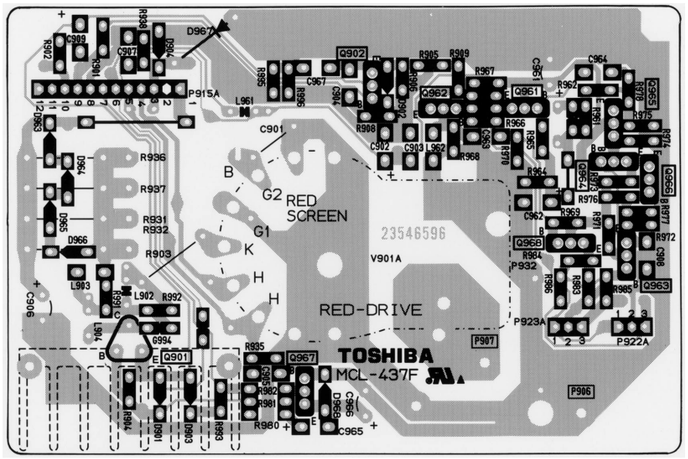
POWER BOARD PD0184

BOTTOM (FOIL) SIDE



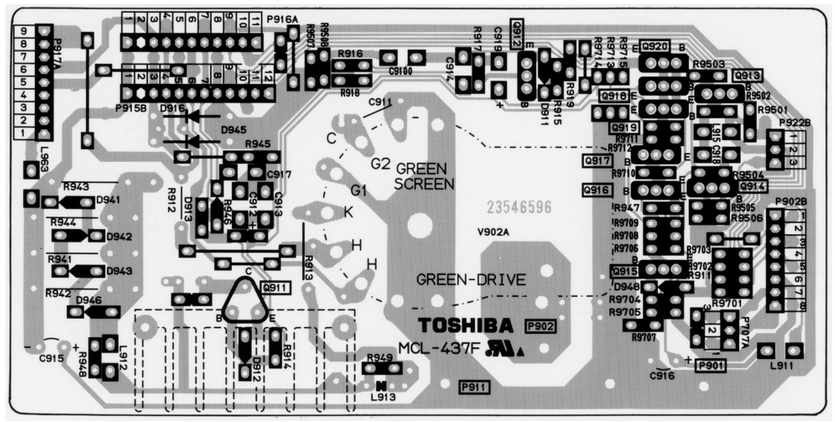
R-DRIVE BOARD PD0202-1

BOTTOM (FOIL) SIDE



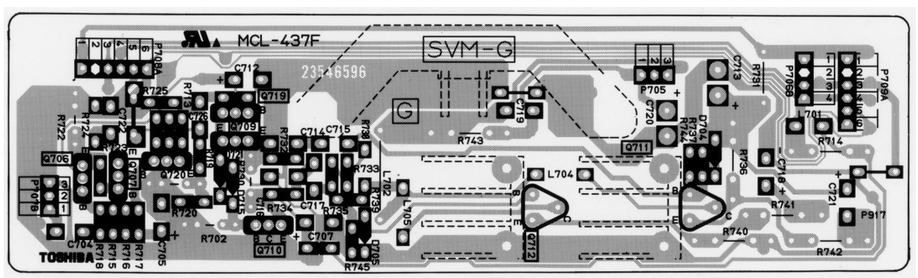
G-DRIVE BOARD PD0202-2

BOTTOM (FOIL) SIDE



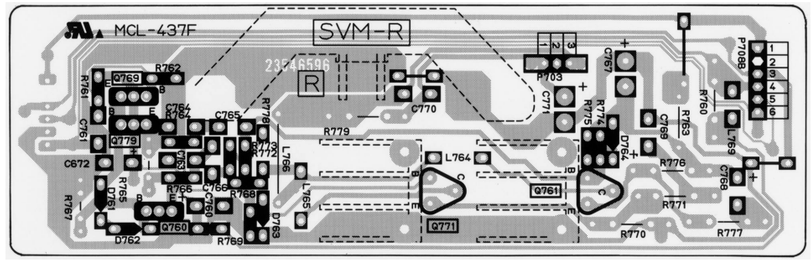
SVM-G BOARD PD0202-4

BOTTOM (FOIL) SIDE



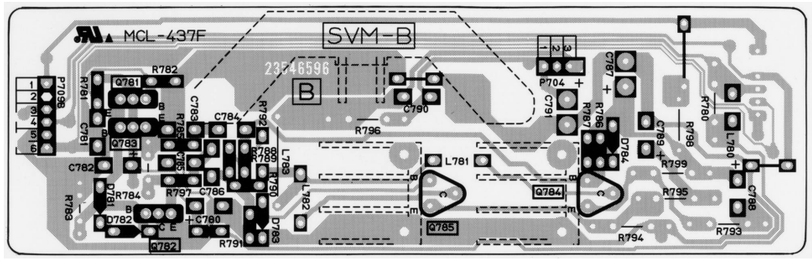
SVM-R BOARD PD0202-5

BOTTOM (FOIL) SIDE



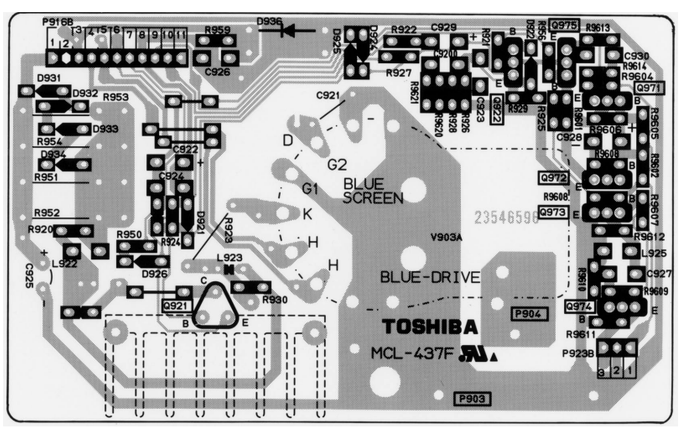
SVM-B BOARD PD0202-6

BOTTOM (FOIL) SIDE



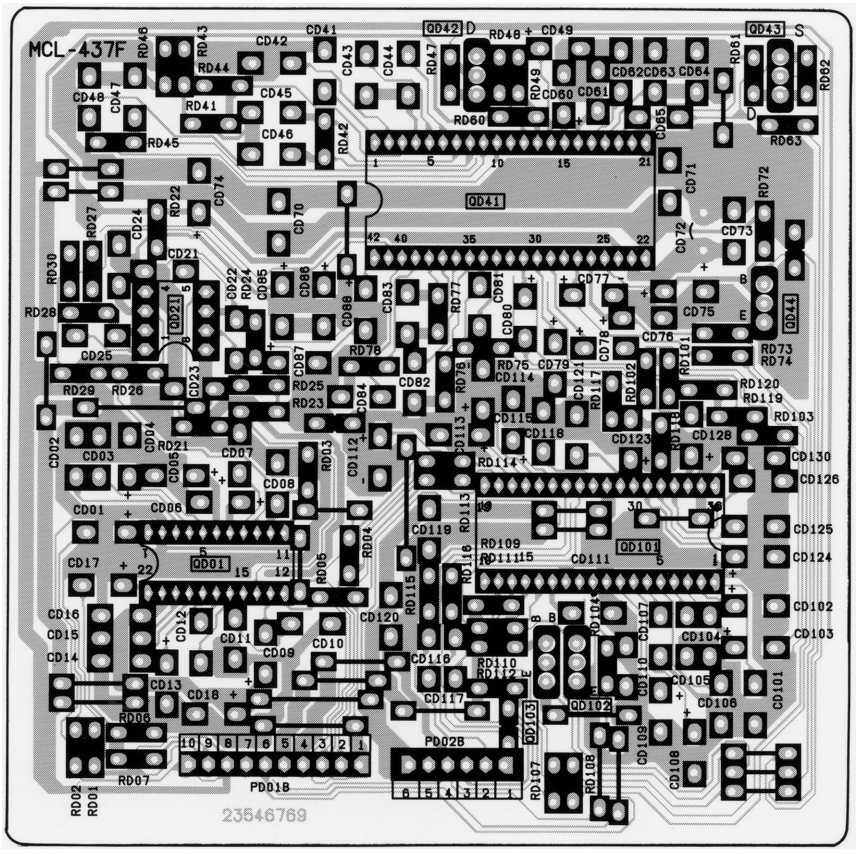
B-DRIVE BOARD PD0202-3

BOTTOM (FOIL) SIDE



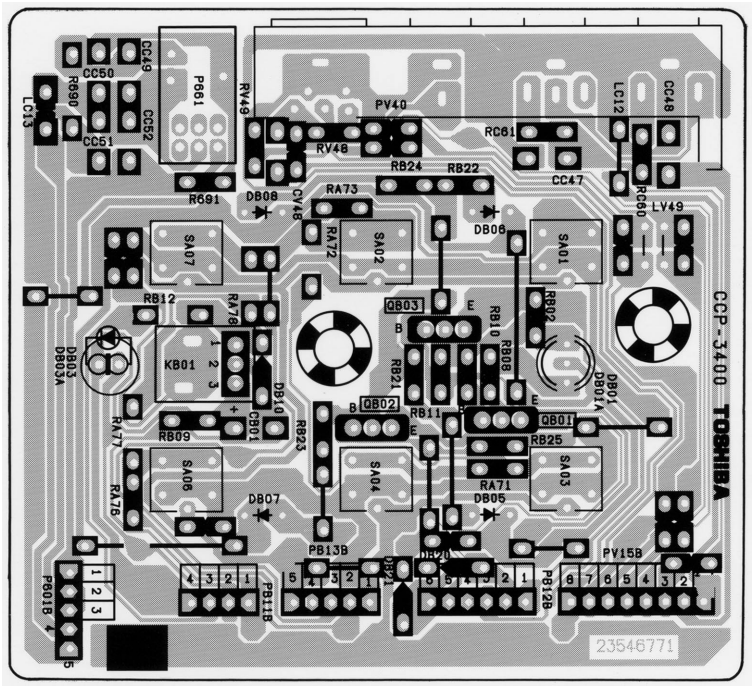
WOW BOARD PD0453

BOTTOM (FOIL) SIDE



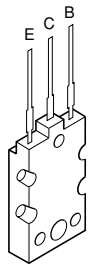
FRONT BOARD PD0147

BOTTOM (FOIL) SIDE

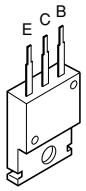


TERMINAL VIEW OF TRANSISTORS

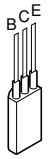
① 2SD2253
(old)
2SC5243



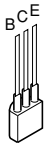
② 2SC3852
2SD1763A
2SC1569
2SC4544
2SA1788
2SA1306
2SA1186A



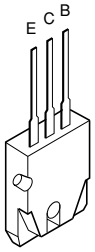
③ 2SC752GTM
2SC2482
2SC2655
2SC4721P



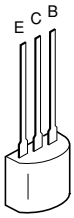
④ 2SC752
2SA562TM
2SA1015
2SC1815
2SC2878
2SC1740S
2SC2120
2SA9335



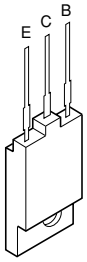
⑤ 2SA1788



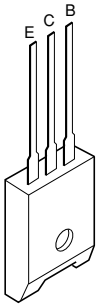
⑥ RN2203
RN2201
RN2004
RN1203
RN1204
RN2204
RN1205
RN1202
RN1201



⑦ 2SD1554
2SD2253
2SD1556
2SC5143
2SD2553
2SC5144



⑧ ON4409



MEMO

SCHEMATIC DIAGRAM

MODEL : 43A9UE / 43A9UA

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON THE MANUAL FOR THIS MODEL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on the MANUAL for this model. Do not degrade the safety of the receiver through improper servicing.

NOTE:

1. RESISTOR Resistance is shown in ohm [K = 1.000, M = 1.000.000]. All resistors are 1/6W and 5% tolerance carbon resistor, unless otherwise noted as the following marks.
   1/2R = Metal or Metal oxide of 1/2 watt 1/2S = Carbon compsistion of 1/2 watt
   1RF = Fuse resistor of 1 watt 10W = Cement of 10 watt
   K = ±10% G = ±2% F = ±1%
2. CAPACITOR Unless otherwise noted in schematic, all capacitor values less than 1 are expressed in μF, and the values more than 1 in pF.
   All capacitors are ceramic 50V, unless otherwise noted as the following marks.
   Electolytic capacitor Mylar capacitor
3. The parts indicated with " ⚠ " have special characteristics, and should be replaced with identical parts only.
4. Voltages read with DIGITAL MULTI-METER from point indicated to chassing ground, using a color bar signal with all controls at normal, line voltage 220 volts.
5. Waveforms are taken receiving color bar signal with enough sensitivity.
6. Voltage reading shown are nominal values and may vary ±20% except H.V.

■ SCHEMATIC DIAGRAM STRUCTURE:

- SIGNAL
  - OTHERS [SHEET-1] 1/14
  - AV [SHEET-2] 2/14
  - SOUND [SHEET-3] 3/14
  - IF [SHEET-4] 4/14
  - M-CON [SHEET-5] 5/14
  - BEP [SHEET-7] 6/14
  - REGU-OUT [SHEET-8] 7/14
  - 3DYCS / OTHER [SHEET-9] 8/14
- DEF / CONVER [SHEET-1] 9/14
- DEF / CONVER [SHEET-2] 10/14
- SRS-WOW 11/14
- FRONT-IN RMT-IN (43A9 SERIES) 12/14
- CRT-D SVM 13/14
- POWER 14/14

MEMO

MEMO

SPECIFICATION		Representative: 43A9UE
Rated voltage		∼ 110 V – 240 V, 50/60 Hz
Power consumption (at ∼ 220 V, 50 Hz)		Approx. 160 W
Dimensions (Width × Depth × Height)		943.5 mm × 510 mm × 1287 mm
Mass		59.5 kg
Picture tube		Type 43 (109 cm)
Television system (Aerial input)	Channel coverage	**System** **VHF** **UHF** **CATV (Channel)** PAL B/G (CCIR) 2 – 12 21 – 69 X ~ Z+2, S1 ~ S41 PAL I (UK) — 21 – 69 — PAL D/K (CHINA) 1 – 12 13 – 57 Z–1 ~ Z–38 SECAM B/G (CCIR) 2 – 12 21 – 69 X ~ Z+2, S1 ~ S41 SECAM D/K (OIRT) 1 – 12 21 – 69 X1 ~ X19 NTSC M (US) 2 – 13 14 – 69 A–6 ~ A–1, A ~ W, AA ~ ZZ, AAA, BBB NTSC M (JAPAN) 1 – 12 13 – 62 M1 ~ M10, S1 ~ S41
	Special RF signal	**Colour system** **Sound system** NTSC4.43 5.5/6.0/6.5 MHz PAL 60Hz 5.5/6.0/6.5 MHz
Colour system		PAL/SECAM/NTSC4.43/NTSC3.58
Sound output		20W + 20W (10% THD)
Accessories		• Remote controller × 1 • Batteries (R03, AAA) × 2

* Please refer to owner's manual in detail.

TOSHIBA CORPORATION
1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN

SCHEMATIC DIAGRAM

MODEL : 43A9UE / 43A9UA

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON THE MANUAL FOR THIS MODEL.

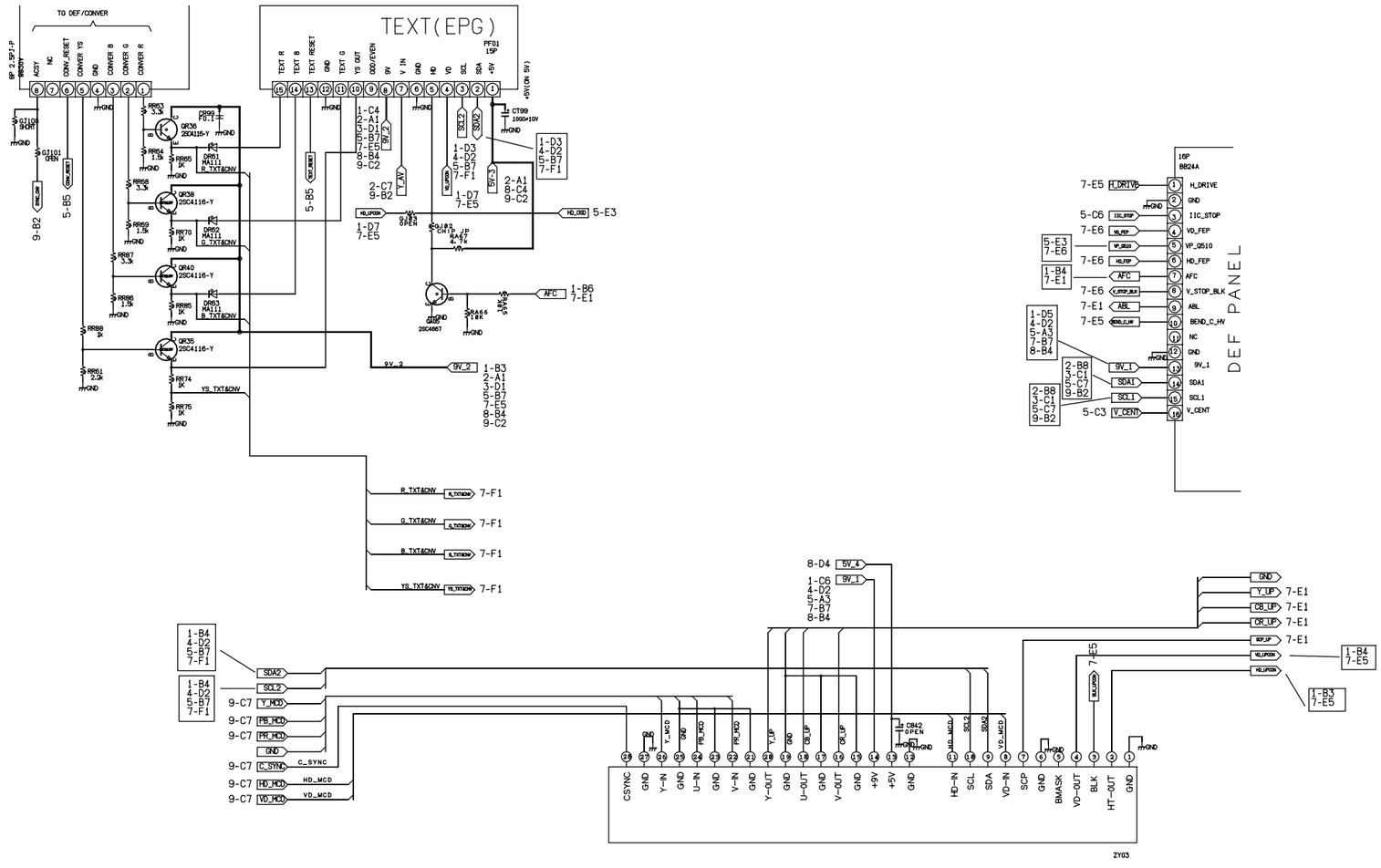
CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on the MANUAL for this model. Do not degrade the safety of the receiver through improper servicing.

NOTE:

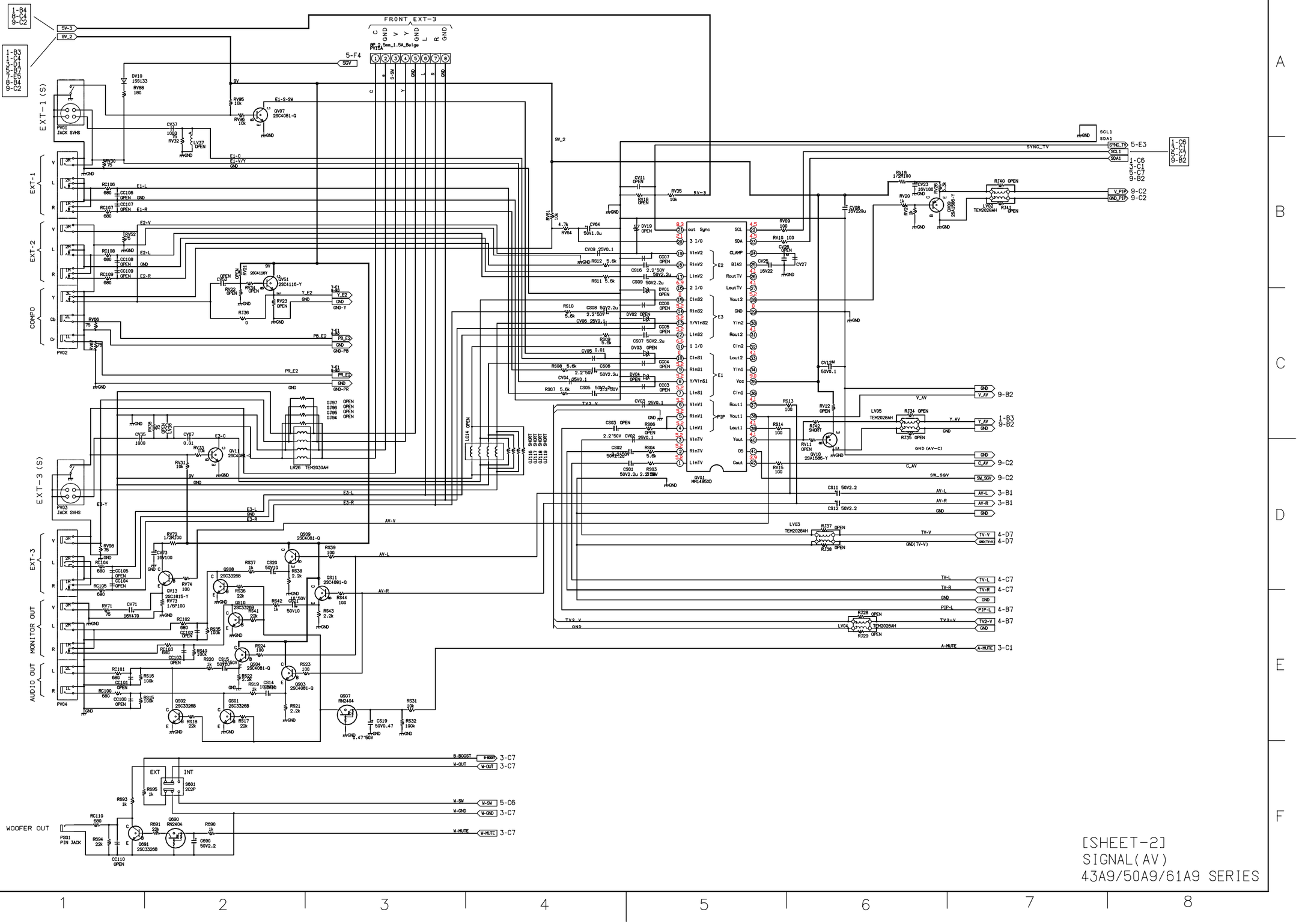
1. RESISTOR Resistance is shown in ohm [K = 1.000, M = 1.000.000]. All resistors are 1/6W and 5% tolerance carbon resistor, unless otherwise noted as the following marks.
   1/2R = Metal or Metal oxide of 1/2 watt 1/2S = Carbon compsistion of 1/2 watt
   1RF = Fuse resistor of 1 watt 10W = Cement of 10 watt
   K = ±10% G = ±2% F = ±1%
2. CAPACITOR Unless otherwise noted in schematic, all capacitor values less than 1 are expressed in μF, and the values more than 1 in pF.
   All capacitors are ceramic 50V, unless otherwise noted as the following marks.
   Electolytic capacitor Mylar capacitor
3. The parts indicated with " ⚠ " have special characteristics, and should be replaced with identical parts only.
4. Voltages read with DIGITAL MULTI-METER from point indicated to chassing ground, using a color bar signal with all controls at normal, line voltage 220 volts.
5. Waveforms are taken receiving color bar signal with enough sensitivity.
6. Voltage reading shown are nominal values and may vary ±20% except H.V.

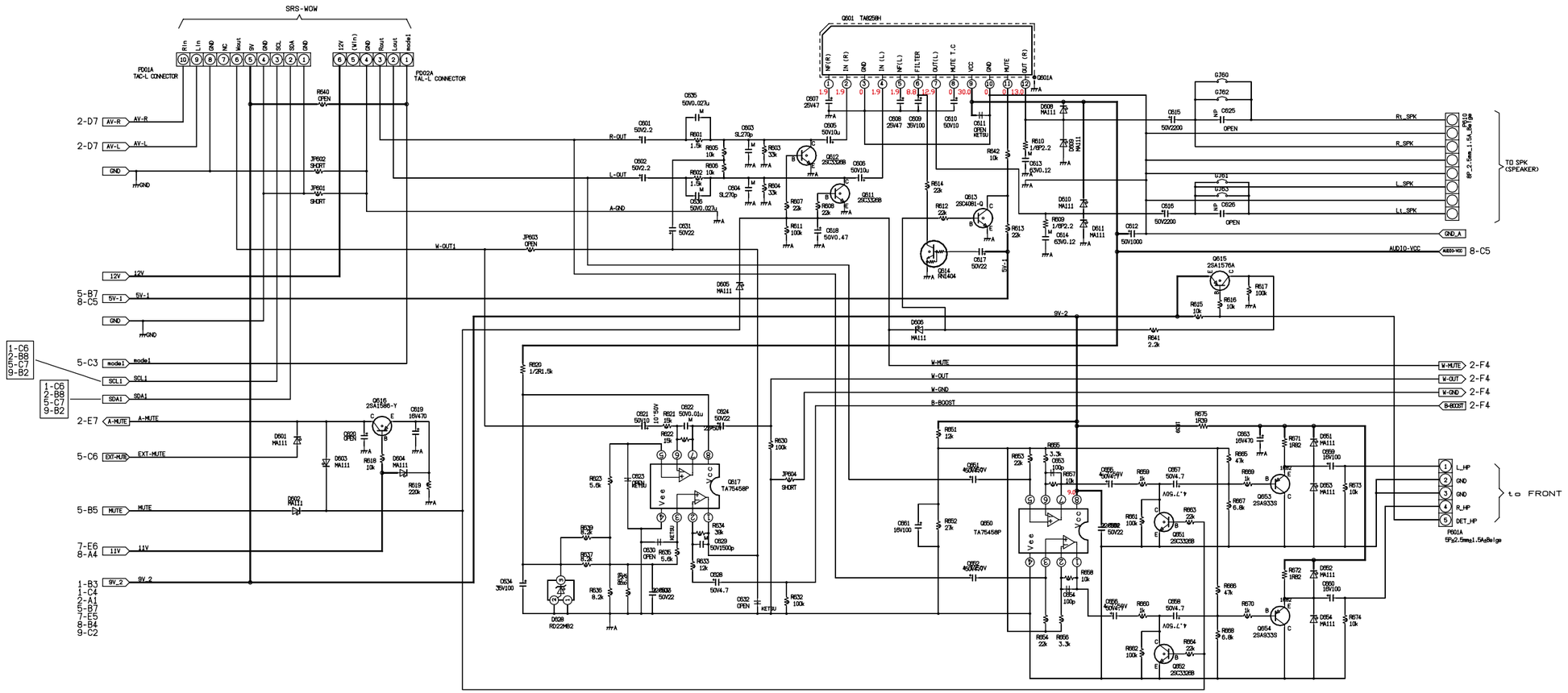
■ SCHEMATIC DIAGRAM STRUCTURE:

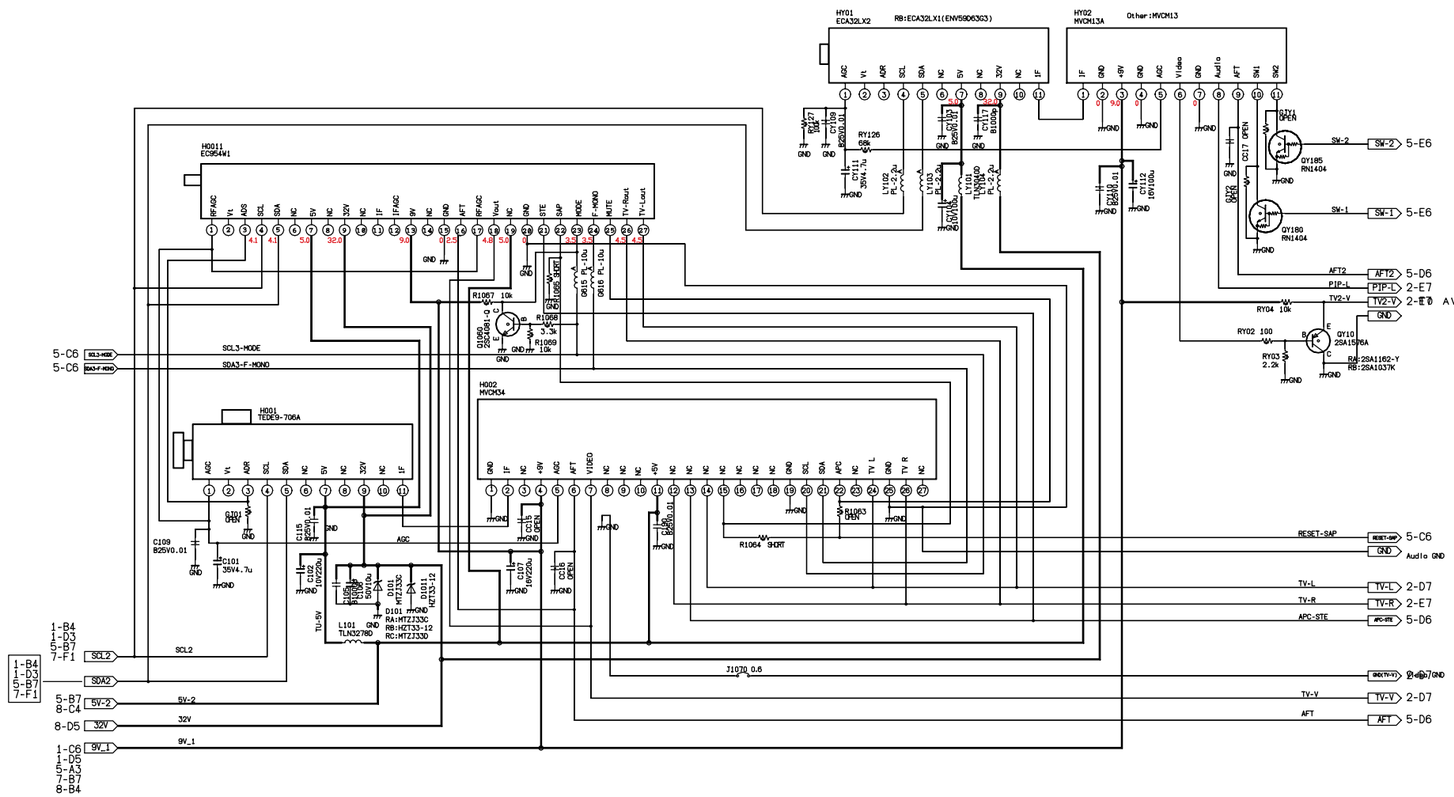
- SIGNAL
  - OTHERS [SHEET-1] 1/14
  - AV [SHEET-2] 2/14
  - SOUND [SHEET-3] 3/14
  - IF [SHEET-4] 4/14
  - M-CON [SHEET-5] 5/14
  - BEP [SHEET-7] 6/14
  - REGU-OUT [SHEET-8] 7/14
  - 3DYCS / OTHER [SHEET-9] 8/14
- DEF / CONVER [SHEET-1] 9/14
- DEF / CONVER [SHEET-2] 10/14
- SRS-WOW 11/14
- FRONT-IN RMT-IN (43A9 SERIES) 12/14
- CRT-D SVM 13/14
- POWER 14/14



[SHEET-1]
SIGNAL(OTHERS)
43A9/50A9/61A9 SERIES


FRONT EXT-3
C
GND
V
Y
GND
L
R
GND
5-F4
SGV
EXT-1 (S)
EXT-1
EXT-2
COMPO
EXT-3 (S)
EXT-3
MONITOR OUT
AUDIO OUT
WOOFER OUT
PV01 JACK SVHS
PV02
PV03 JACK SVHS
PV04
PS01 PIN JACK
E1-S-SW
E1-C
E1-V/Y
E1-L
E1-R
E2-V
E2-L
E2-R
E2-C
E2-Y
E3-C
E3-Y
E3-L
E3-R
AV-V
AV-L
AV-R
Y_E2
PB_E2
PR_E2
GND-Y
GND-PB
GND-PR
QV07 2SC4081-Q
QV51 2SC4116Y
QV11 2SC4081-Q
QV13 2SC1815-Y
QS01 2SC3326B
QS02 2SC3326B
QS03 2SC3326B
QS04 2SC4081-Q
QS07 RN2404
QS08 2SC3326B
QS09 2SC4081-Q
QS10 2SC3326B
QS11 2SC4081-Q
QV01 MM1495XD
QV10 2SA1586-Y
QV09 2SA1586-Y
LR26 TEM2030AH
LV02 TEM2028AH
LV03 TEM2028AH
LV04 TEM2028AH
LV05 TEM2028AH
Q690 RN2404
Q691 2SC3326B
S601 2C2P
EXT
INT
W-BOOST
W-OUT
W-SW
W-GND
W-MUTE
SYNC_TV
V_AV
Y_AV
C_AV
SW_SGV
AV-L
AV-R
TV-V
TV-L
TV-R
PIP-L
TV2-V
A-MUTE
GND(AV-C)
GND(TV-V)
[SHEET-2]
SIGNAL(AV)
43A9/50A9/61A9 SERIES


SRS-WOW
PD01A TAC-L CONNECTOR
PD02A TAL-L CONNECTOR
Rin Lin GND MC Mout 9V GND SCL SDA GND
12V (VFD) GND Rout Lout mode1
Q601 TA8256H
NF(R) IN (R) GND IN (L) NF(L) FILTER OUT(L) MUTE T.C VCC GND MUTE OUT (R)
1.9 1.9 0 1.9 1.9 8.8 12.9 0 30.0 0 0 13.0
AV-R
AV-L
GND
R640 OPEN
JP602 SHORT
JP601 SHORT
R-OUT
L-OUT
A-GND
W-OUT1
JP603 OPEN
12V
5V-1
GND
mode1
SCL1
SDA1
A-MUTE
EXT-MUTE
MUTE
11V
9V_2
W-MUTE
W-OUT
W-GND
B-BOOST
R_SPK
L_SPK
GND_A
AUDIO-VCC
TO SPK (SPEAKER)
L_HP
GND
R_HP
DET_HP
to FRONT
5V-2
1-C6 2-B8 5-C7 9-B2
2-D7
5-B7 8-C5
5-C3
2-E7
5-C6
5-B5
7-E6 8-A4
1-B3 1-C4 2-A1 5-B7 7-E5 8-B4 9-C2
2-F4
8-C5
[SHEET-3]
SIGNAL(SOUND)
43A9/50A9/61A9 SERIES



[SHEET-4]
SIGNAL(IF)
43A9/50A9/61A9 SERIES

TO FRONT IN

+5V-1 RMT OUT RMT IN GND GND ILLUMINA GREEN LED LED 5V-1 5V-1

J1103 6P_2.5mm_1.5A_BA6368R

PB13A 5P_2.5mm_1.5A_Beige

GND SHIFT KEY-B KEY-A GND

KEY-B KEY-A

5V_1

1-C6 1-D5 4-D2 7-B7 8-B4

RB03 100

QB03 RN1205

3-D1 MUTE

5V-1

QA02 AT24C64-10PC

RA60 RN738H470J0

RA29 10K

RA30 10K

CA46 0.01

CA49 0.01

VDD WP SCL SDA A0 A1 A2 GND

3-C1 mode1 (WOW)

V_CENT 1-C6

CA58 16V33

RA59 1K

RA58 10K

RA03 1K

RA531 4.7K

RA501 10K

RA50 1K

CA501 B0.01

DA501 5.6C

LA01 10u

CA43 B0.01

RA62 5.6C

CA44 OPEN

CA45 1000u

LB02 TRF1197D

RA44 330

RA125 5.6K

RA124 5.6K

RA123 5.6K

RA122 5.6K

RA27 1K

RA26 1K

RA36 4.7K

RA40 1K

CA30 100p

CA31 B0.01

CA75 OPEN

CA74 OPEN

CA73 OPEN

CA72 OPEN

RA130 OPEN

GND

QA01 CXP752096

TEXT RESET IIC-STOP WOOFER SW TM LEVEL PIP VOL ITT RESET RMT IN SCL1 SDA1 E MUTE LED POWER SCL3 SDA3 RST VSS XTAL XTAL AFT2 IN AFT1 IN KEY A KEY B SGV SYNC MAIN C MUTE APC SW PIP RESET SW 0 SW 1 MODE CONV MUTE RESET 2 NC GND VDD NC EXLC XLC YM YS I B G R VD HD SYNC TV

RA100 10k

RA56 4.7K

RA19 OPEN

RA09 OPEN

CON_RESET 1-B2

TEST_RESET 1-B3

RA02 1K

RA01 1K

RA05 1K

RA35 1K

RA37 100

RA38 100

RA29 1K

RA28 1K

RA07 1K

RA08 1K

RA12 330

RA11 330

RA20 1K

RA16 1K

RA17 1K

RA18 1K

RA10 3.3K

RA41 3.3K

RA42 3.3K

RA70 10K

RA33 10K

CA10 OPEN

CA09 OPEN

CA33 0.01

XA01 TCR10B0A

RA13 1K

CA13 RETSU

RA44 OPEN

RA51 1K

RA24 100

RA25 100

RA14 10K

RA45 OPEN

RA43 10K

RA241 4.7K

RA251 4.7K

RA68 OPEN

RA69 OPEN

RA97 OPEN

RA98 OPEN

IIC_STOP 1-B6

W-SW 2-F4

RESET-SAP 4-C7

EXT-MUTE 3-D1

POWER 8-C5

SCL3-MODE 4-B2

SDA3-F-MONO 4-B2

RST 8-C5

AFT2 1-B7

AFT 4-D7

KEY-A KEY-B

SYNC_MAIN 9-C7

APC-STE 4-C7

SW-1 4-B7

SW-2 4-B7

5Vp-p SCL

5Vp-p SDA

8-D5 RESET2

5Vp-p

fH

fV

QB92 2SC4081T

QB93 2SA1576A

QB94 2SA1576A

QB95 2SA1576A

QB96 2SA1576A

QB81 2SC3326B

QB82 2SC3326B

QB83 2SA1576A

GJ32 OPEN

GJ33 OPEN

GJ34 OPEN

RB90 3.9K

RB91 1K

RB92

RB93 270

RB94 12K

RB95 12K

RB96 27K

RB97 2.7K

RB81 1.2K

RB82 12K

RB83 12K

CB90 0.01

SCL2 SDA2 9V_2 5V-2 5V-1

SCL1 SDA1

1-B4 1-D3 4-D2 7-F1

1-B3 1-C4 2-A1 3-D1 7-E5 8-B4 9-C2

4-D2 8-C4

3-C1 8-C5

1-C6 2-B8 3-C1 9-B2

7-F1 YS_OSD B_OSD G_OSD R_OSD

YS_OSD2 B_OSD2 G_OSD2 R_OSD2

1-B6 7-E6 VP_OSD

1-B4 HD_OSD HD_OSD HD(32K)

2-B8 SYNC_TV SYNC_TV

VD(100)

QA06 2SK3018T

RA42 4.7K

RA40 1K

CA1 B0.01

fH 5Vp-p

fV 5Vp-p

RB45

SV02 2SK4116-Y

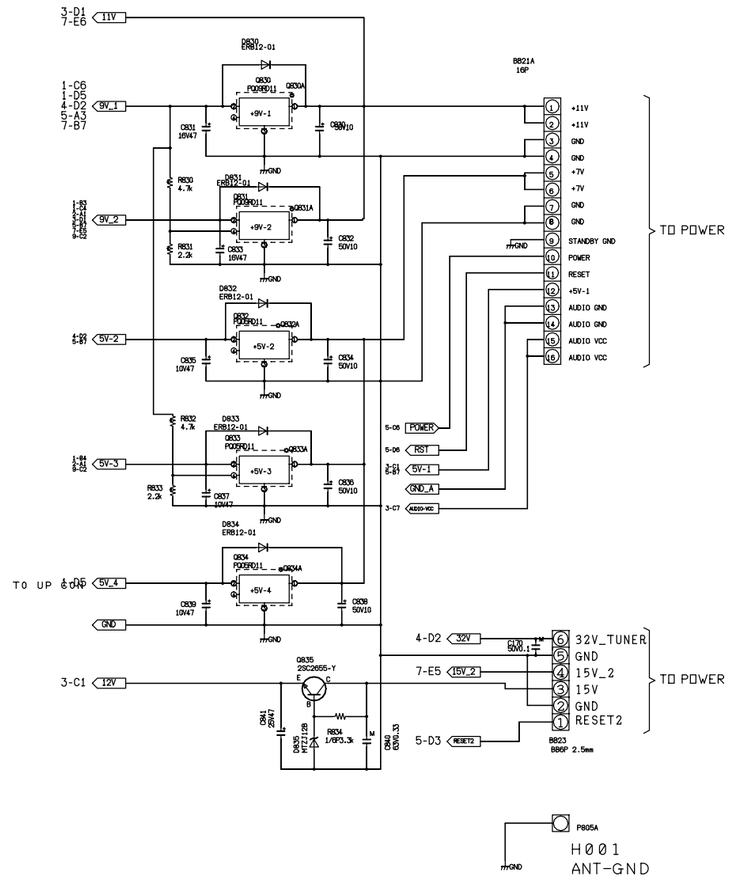
RV25 2.2K

2-A3 SGV SGV

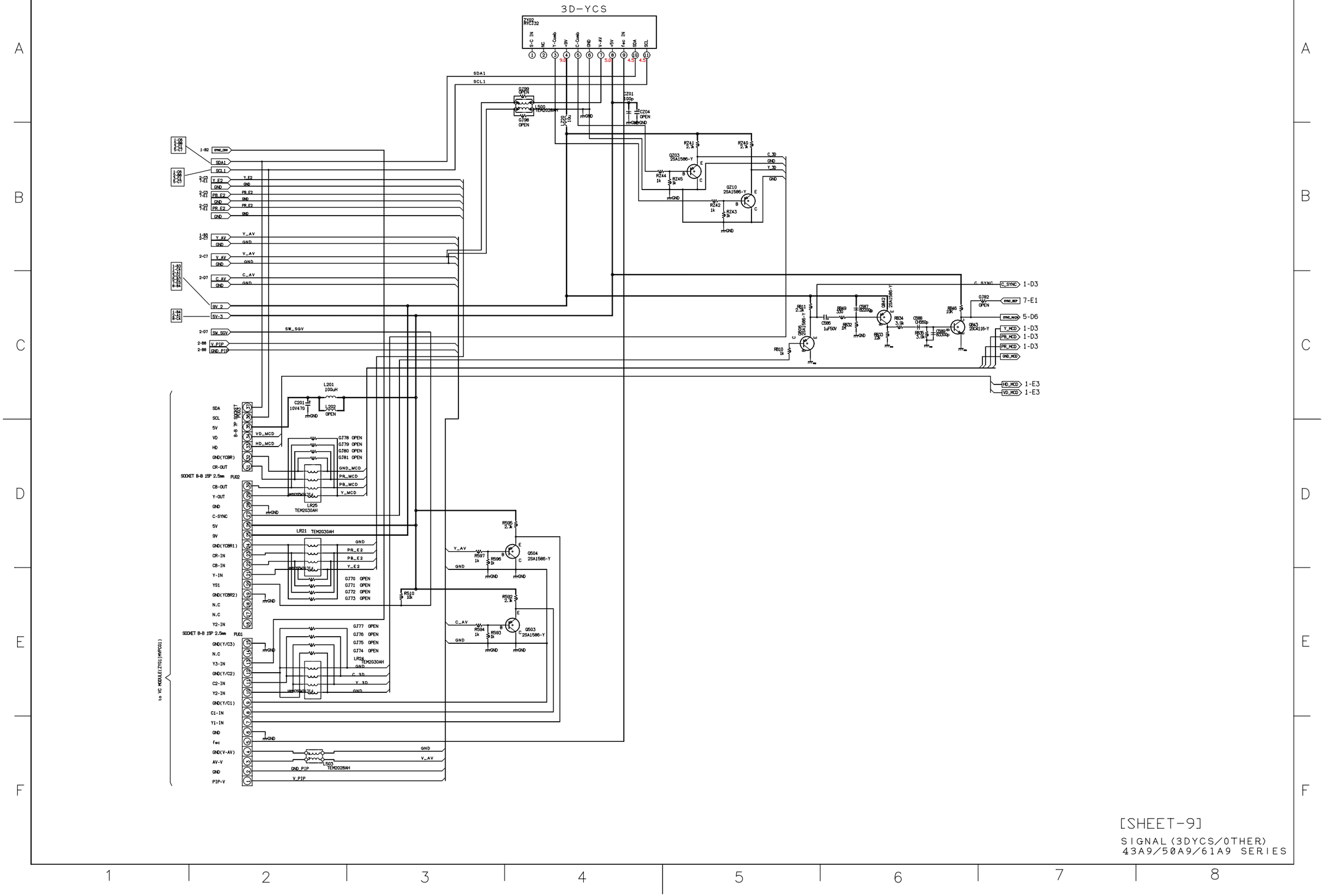
[SHEET-5]
SIGNAL(M-CON)
43A9/50A9/61A9 SERIES

[SHEET-7]

SIGNAL (BEP)
43A9/50A9/61A9 SERIES

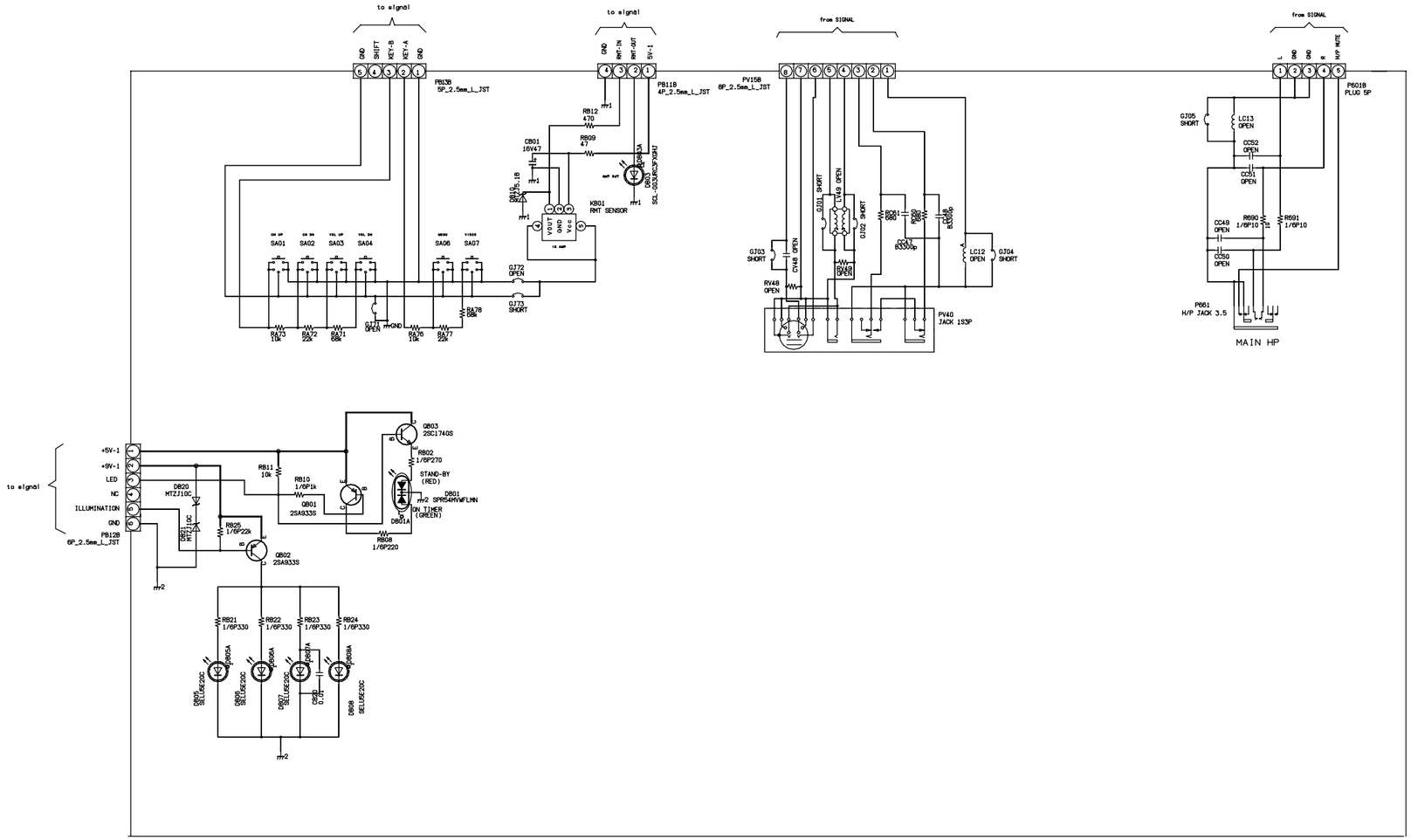


[SHEET-8]
SIGNAL (REGU-OUT)
43A9/50A9/61A9 SERIES


3D-YCS
CZ02 RYC232
S-C IN
NC
Y-Comb
+9V
C-Comb
GND
V-AV
+5V
Fac IN
SDA
SCL
9.0
5.0
4.5
4.5
SDA1
SCL1
GJ99 OPEN
GJ98 OPEN
L500 ERA228AH
CZ01 100p
CZ04 OPEN
mVGND
RZ41 2.2k
RZ40 2.2k
QZ03 2SA1586-Y
RZ44 1k
RZ45 3k
QZ10 2SA1586-Y
RZ42 1k
RZ43 3k
C_3D
GND
Y_3D
GND
1-B2 SYNC_DW
SDA1
SCL1
2-C7 Y_E2
GND
PB_E2
GND
PR_E2
GND
1-B3 2-C3 Y_AV
GND
2-C7 V_AV
GND
2-C7 C_AV
GND
9V_2
5V-3
2-C7 SW_SGV
2-B8 V_PIP
2-B8 GND_PIP
SW_SGV
C_SYNC
RB11 2.2k
CB85 1uF50V
RB49 330
CB87 0.022uF
QB42 2SA1586-Y
RB34 3.3k
CB88 0.022uF
RB45 10k
QB43 2SC4116-Y
QB06 2SA1586-Y
RB10 1k
RB32 1M
RB33 10k
RB46 1.5k
CB89 0.022uF
C_SYNC 1-D3
GJ82 OPEN
SYNC_REF 7-E1
SYNC_MAIN 5-D6
Y_MCD 1-D3
PB_MCD 1-D3
PR_MCD 1-D3
GND_MCD
HD_MCD 1-E3
VD_MCD 1-E3
L201 100uH
C201 10V470
L202 OPEN
SOCKET B-B 15P 2.5mm PU02
SDA
SCL
5V
VD_MCD
VD
HD_MCD
HD
GND(YCBR)
CR-OUT
CB-OUT
Y-OUT
GND
C-SYNC
5V
9V
GND(YCBR1)
CR-IN
CB-IN
Y-IN
YS1
GND(YCBR2)
N.C
N.C
Y2-IN
GJ78 OPEN
GJ79 OPEN
GJ80 OPEN
GJ81 OPEN
GND_MCD
PR_MCD
PB_MCD
Y_MCD
LR25 TEM2030AH
LR21 TEM2030AH
GND
PR_E2
PB_E2
Y_E2
GJ70 OPEN
GJ71 OPEN
GJ72 OPEN
GJ73 OPEN
R510 10k
R595 2.2k
Y_AV
R597 1k
R596 3k
Q504 2SA1586-Y
R592 2.2k
C_AV
R594 1k
R593 3k
Q503 2SA1586-Y
SOCKET B-B 15P 2.5mm PU01
GND(Y/C3)
N.C
Y3-IN
GND(Y/C2)
C2-IN
Y2-IN
GND(Y/C1)
C1-IN
Y1-IN
GND
fac
GND(V-AV)
AV-V
GND
PIP-V
GJ77 OPEN
GJ76 OPEN
GJ75 OPEN
GJ74 OPEN
LR24 TEM2030AH
GND
C_3D
Y_3D
GND
L503 TEM2028AH
GND
V_AV
GND_PIP
V_PIP
to SCART(TO01)(TO04)
[SHEET-9]
SIGNAL(3DYCS/OTHER)
43A9/50A9/61A9 SERIES

DEF/CONVER(1/2)
43A9/50A9/61A9 SERIES
[SHEET-1]

TO POWER
TO SIGNAL
TO POWER
TO SIGNAL
BB80B
BB 16P BLUG
BB21B
BB 16P BLUG
BB82B
BB 16P BLUG
BB23B
BB 6P
P708
BB 15P
P709
BB 15P
CONVER R
CONVER G
CONVER B
GND
CONVER YS
CONV_RESET
NC
ACSY
TO SIGNAL
BB30B
BB 8P1-P
DRIVE
RETURN
GREEN CONVER YOKE
DRIVE
RETURN
RED CONVER YOKE
DRIVE
RETURN
BLUE CONVER YOKE
DRIVE
RETURN
DEF/CONVER(2/2)
43A9/50A9/61A9 SERIES
[SHEET-2]



FRONT-IN RMT-IN

43A9/50A9 SERIES

DLTV_PJ_43A9	PD0295D	23787083	43A9UC
TSP_PJ_43A9	PD0435	23787082	43A9UE
US_PJ_#1	FWD610	44036	50H81 #1
US_PJ_43	PD0220C	27787072	43HX71
US_PJ_50	PD0220A	23786476	50HX81
US_DView_TVE	PD0348	23786917	34HF81
US_DView_TMX	PD0220B	23786625	36HFX71
Asia_PJ_not_China	PD0143	23786346	43A7DE
Asia_PJ_China	PD0295	23786745	43A7C
Asia_DV_not_China	PD0325A	23786823	29AX9UH
Asia_DV_China	PD0295A	23786767	29AF9UC
	unit	SN	model

WOW	H	H	H
FOCUS	H	L	L
3D-STEREO	L	L	H
TruBass	L	H	L
BYPASS	L	L	L
	Mode1	Mode2	MOde3

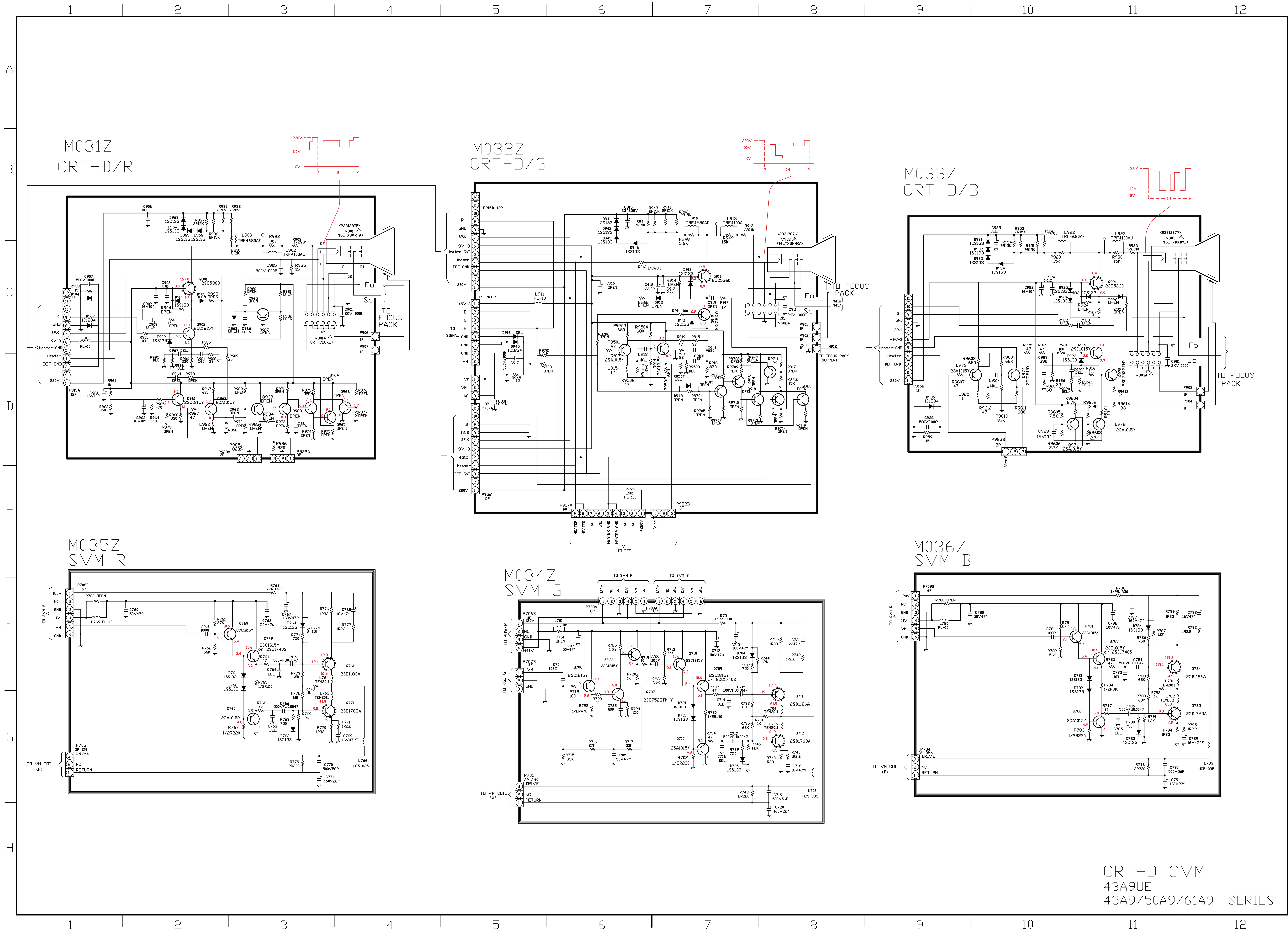
TKD: 23713146

TKD: 23713144

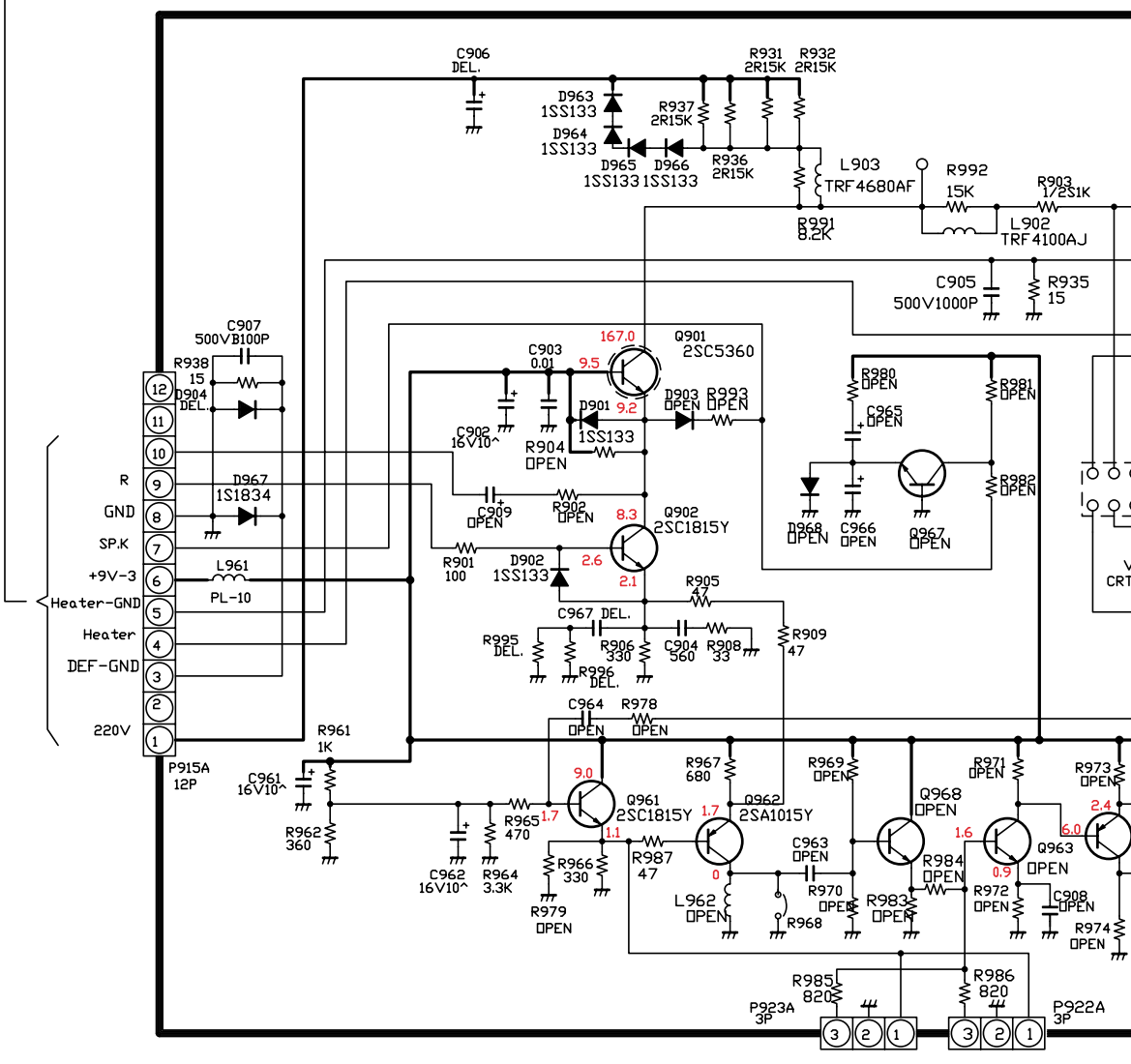
TO SIGNAL

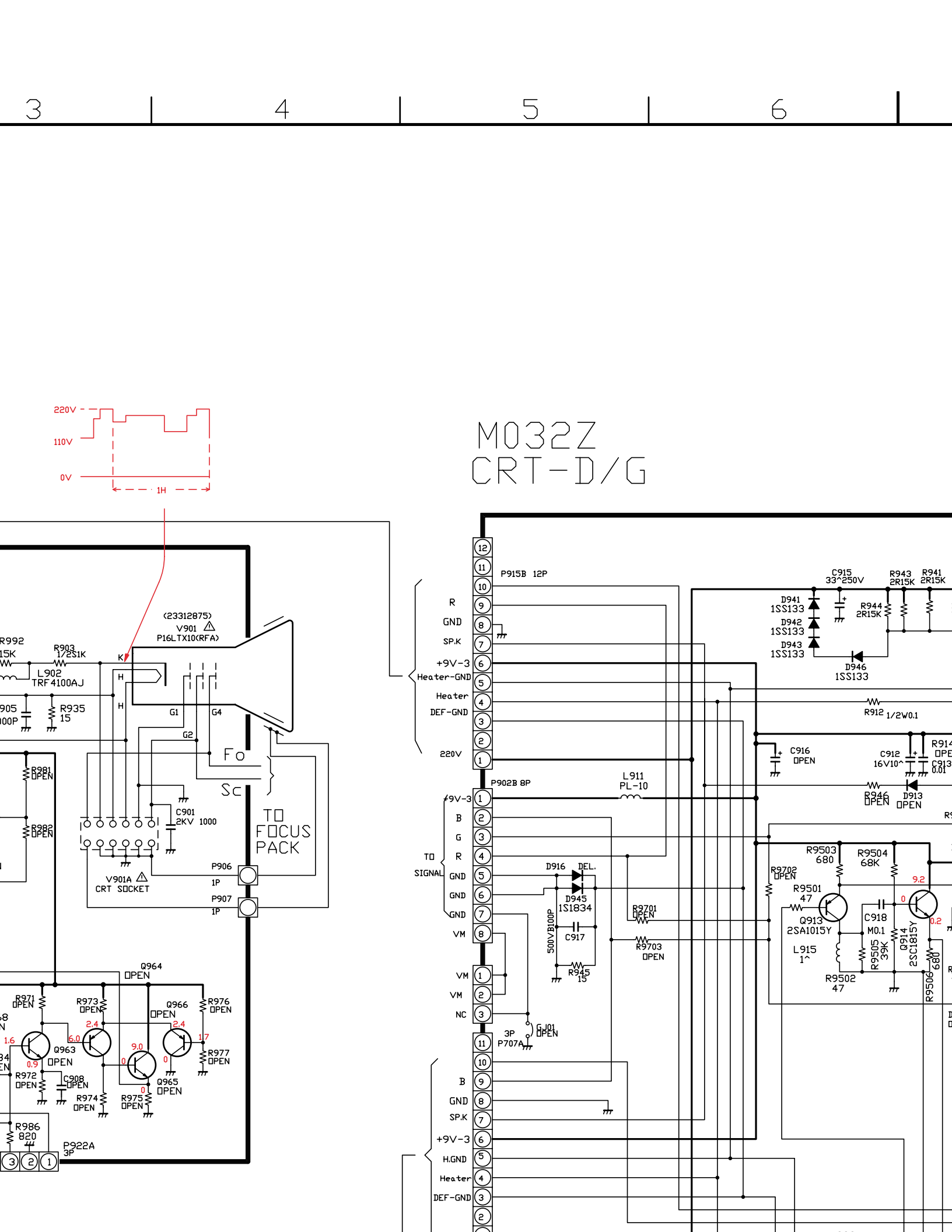
SRS—WOW

43A9/50A9/61A9 SERIES

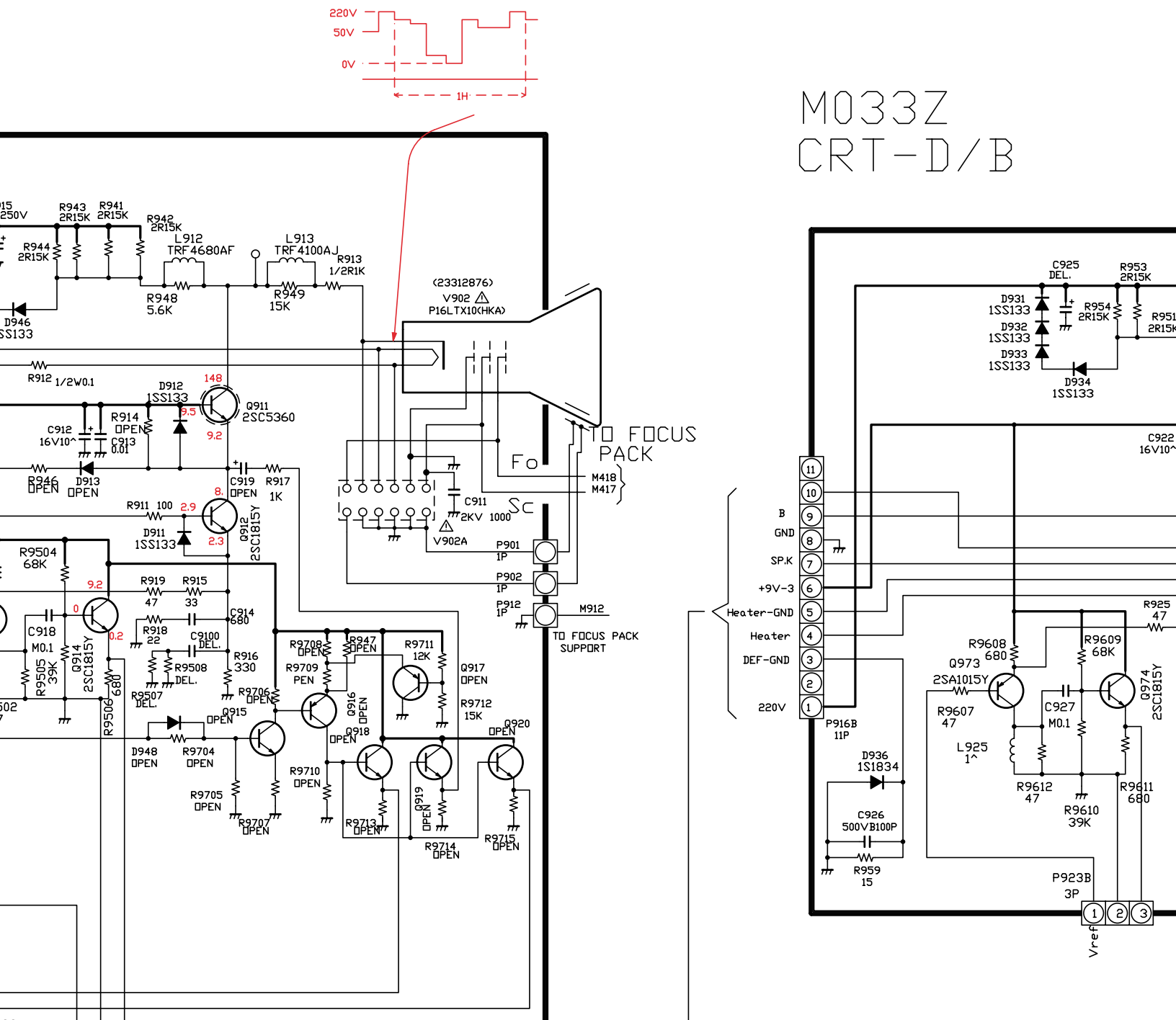

M031Z
CRT-D/R
M032Z
CRT-D/G
M033Z
CRT-D/B
M035Z
SVM R
M034Z
SVM G
M036Z
SVM B
TO FOCUS PACK
TO DEF
TO SVM R
TO SVM B
TO POWER
TO RGB-G
TO VM COIL (R)
TO VM COIL (G)
TO VM COIL (B)
CRT-D SVM
43A9UE
43A9/50A9/61A9 SERIES

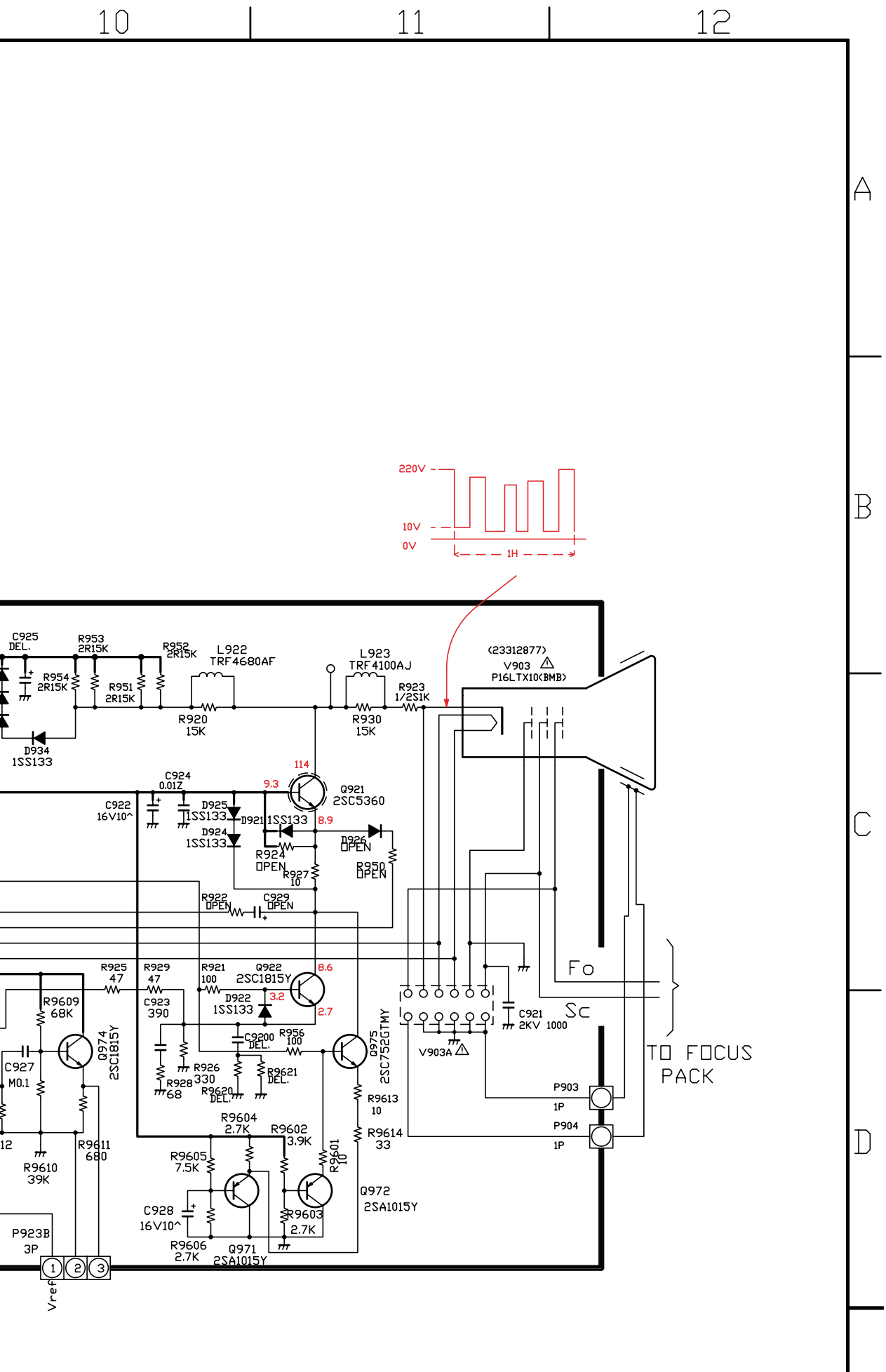
M031Z
CRT-D/R


C906 DEL.
D963 1SS133
D964 1SS133
D965 1SS133
D966 1SS133
R937 2R15K
R931 2R15K
R932 2R15K
R936 2R15K
L903 TRF4680AF
R991 8.2K
R992 15K
R903 172S1K
L902 TRF4100AJ
C905 500V1000P
R935 15
C907 500VB100P
R938 15
D904 DEL.
D967 1S1834
L961 PL-10
P915A 12P
R
GND
SP.K
+9V-3
Heater-GND
Heater
DEF-GND
220V
C903 0.01
Q901 2SC5360
167.0
9.5
9.2
D901 1SS133
D903 OPEN
R993 OPEN
C902 16V10^
R904 OPEN
C909 OPEN
R902 OPEN
8.3
Q902 2SC1815Y
R901 100
D902 1SS133
2.6
2.1
R905 47
C967 DEL.
R995 DEL.
R906 330
C904 560
R908 33
R909 47
R996 DEL.
C964 OPEN
R978 OPEN
R961 1K
C961 16V10^
R962 360
9.0
Q961 2SC1815Y
1.7
1.1
R965 470
C962 16V10^
R964 3.3K
R966 330
R979 OPEN
R967 680
Q962 2SA1015Y
R987 47
0
L962 OPEN
R968
C963 OPEN
R970 OPEN
R969 OPEN
Q968 OPEN
R983 OPEN
R984 OPEN
R971 OPEN
Q963 OPEN
1.6
0.9
R972 OPEN
C908 OPEN
R973 OPEN
2.4
6.0
R974 OPEN
R980 OPEN
R981 OPEN
C965 OPEN
D968 OPEN
C966 OPEN
Q967 OPEN
R982 OPEN
R985 820
R986 820
P923A 3P
P922A 3P
220V
110V
0V

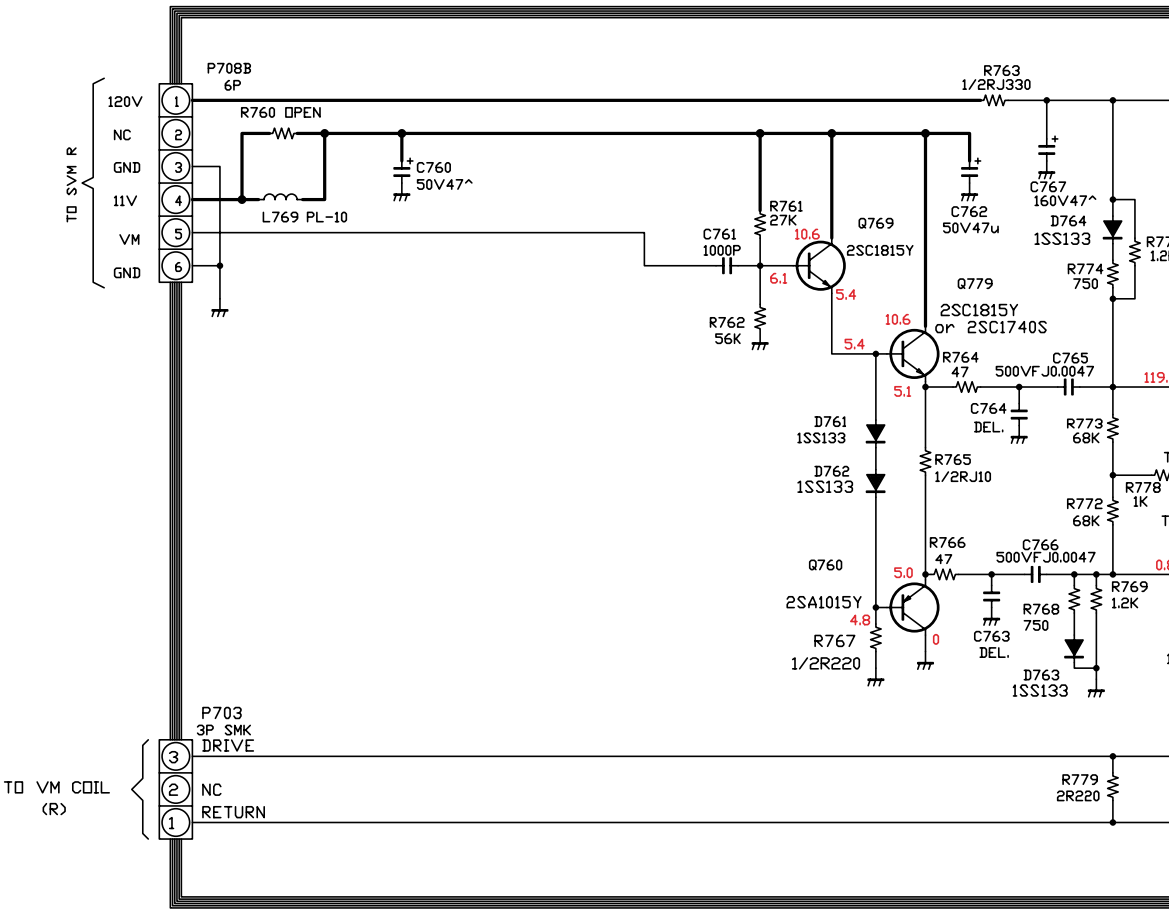

3
4
5
6
220V
110V
0V
1H
M032Z
CRT-D/G
(23312875)
V901
P16LTX10(RFA)
K
H
G1
G2
G4
Fo
Sc
TO
FOCUS
PACK
V901A
CRT SOCKET
P906
1P
P907
1P
C901
2KV 1000
L902
TRF4100AJ
R903
1/2S1K
R935
15
R992
R981
OPEN
R982
OPEN
Q964
OPEN
Q963
OPEN
Q965
OPEN
Q966
OPEN
R971
OPEN
R972
OPEN
R973
OPEN
R974
OPEN
R975
OPEN
R976
OPEN
R977
OPEN
C908
OPEN
R986
820
P922A
3P
P915B 12P
R
GND
SP.K
+9V-3
Heater-GND
Heater
DEF-GND
220V
P902B 8P
+9V-3
B
G
R
GND
GND
GND
VM
VM
VM
NC
TO
SIGNAL
3P
P707A
G101
OPEN
D916
DEL.
D945
1S1834
C917
500VB100P
R945
15
R9701
OPEN
R9703
OPEN
L911
PL-10
B
GND
SP.K
+9V-3
H.GND
Heater
DEF-GND
C915
33^250V
D941
1SS133
D942
1SS133
D943
1SS133
D946
1SS133
R944
2R15K
R943
2R15K
R941
2R15K
R912
1/2W0.1
C916
OPEN
C912
16V10^
C913
0.01
R914
OPE
R946
OPEN
D913
OPEN
R9503
680
R9504
68K
R9702
OPEN
R9501
47
Q913
2SA1015Y
C918
M0.1
L915
1^
R9505
39K
Q914
2SC1815Y
R9502
47
R9506
680
9.2
0
0.2

M033Z
CRT-D/B


220V
50V
0V
1H
(23312876)
V902
P16LTX10(HKA)
TO FOCUS PACK
TO FOCUS PACK SUPPORT
M418
M417
P901
P902
P912
M912
V902A
C911
2KV 1000
SC
Fo
R912 1/2W0.1
D912 1SS133
Q911 2SC5360
R914 OPEN
C912 16V10^
C913 0.01
D913 OPEN
R946 OPEN
C919 OPEN
R917 1K
R911 100
D911 1SS133
Q912 2SC1815Y
R9504 68K
R919 47
R915 33
C914 680
C918 M0.1
R918 22
C9100 DEL.
R9508 DEL.
R9507 DEL.
R916 330
R9505 39K
Q914 2SC1815Y
R9506 680
R9708 OPEN
R947 OPEN
R9709 PEN
R9711 12K
Q917 OPEN
R9712 15K
Q916 OPEN
Q918 OPEN
Q920 OPEN
Q915 OPEN
D948 OPEN
R9704 OPEN
R9706 OPEN
R9705 OPEN
R9707 OPEN
R9710 OPEN
R9713 OPEN
Q919 OPEN
R9714 OPEN
R9715 OPEN
R943 2R15K
R941 2R15K
R942 2R15K
R944 2R15K
L912 TRF4680AF
L913 TRF4100AJ
R913 1/2R1K
R948 5.6K
R949 15K
D946 SS133
C925 DEL.
R953 2R15K
D931 1SS133
D932 1SS133
D933 1SS133
R954 2R15K
D934 1SS133
C922 16V10^
B
GND
SP.K
+9V-3
Heater-GND
Heater
DEF-GND
220V
P916B 11P
R925 47
R9608 680
R9609 68K
Q973 2SA1015Y
Q974 2SC1815Y
R9607 47
C927 M0.1
L925 1^
R9612 47
R9610 39K
R9611 680
D936 1S1834
C926 500VB100P
R959 15
P923B 3P
Vref

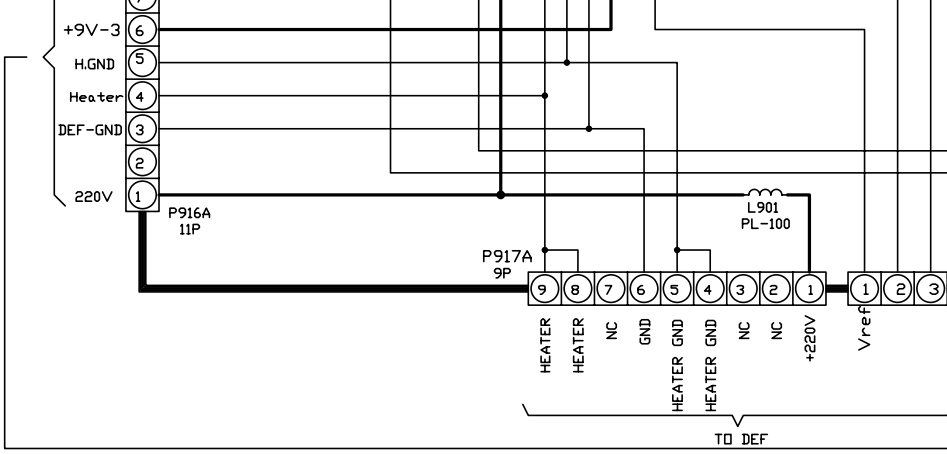

10
11
12
A
B
C
D
220V
10V
0V
1H
C925 DEL.
R953 2R15K
R952 2R15K
L922 TRF4680AF
L923 TRF4100AJ
(23312877)
V903
P16LTX10(BMB)
R954 2R15K
R951 2R15K
R920 15K
R930 15K
R923 1/2S1K
D934 1SS133
C924 0.01Z
114
9.3
Q921 2SC5360
C922 16V10^
D925 1SS133
D921 1SS133
8.9
D924 1SS133
R924 OPEN
D926 OPEN
R927 10
R950 OPEN
R922 OPEN
C929 OPEN
R925 47
R929 47
R921 100
Q922 2SC1815Y
8.6
3.2
2.7
D922 1SS133
C923 390
C9200 DEL.
R956 100
Q975 2SC3752GTMY
R9609 68K
Q974 2SC1815Y
C927 M0.1
R926 330
R928 68
R9620 DEL.
R9621 DEL.
R9613 10
R9614 33
R9604 2.7K
R9602 3.9K
R9605 7.5K
R9601 10
Q972 2SA1015Y
C928 16V10^
R9603 2.7K
R9606 2.7K
Q971 2SA1015Y
R9611 680
R9610 39K
P923B 3P
Vref
Fo
Sc
C921 2KV 1000
V903A
TO FOCUS PACK
P903 1P
P904 1P

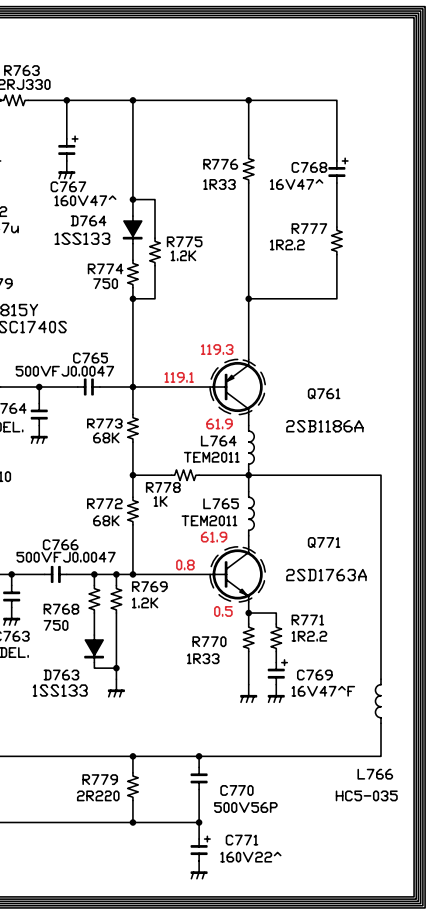
M035Z
SVM R

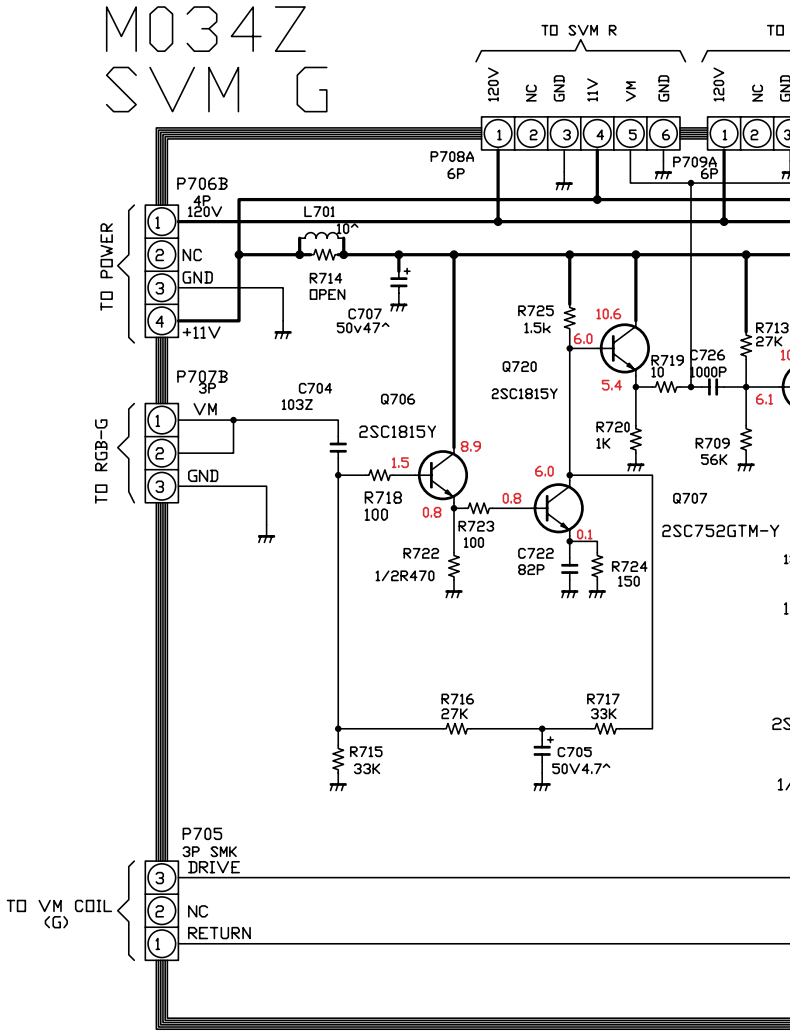

P708B
6P
120V
NC
GND
11V
VM
GND
TO SVM R
R760 OPEN
L769 PL-10
C760
50V47^
R763
1/2RJ330
C762
50V47u
C767
160V47^
D764
1SS133
R761
27K
C761
1000P
R762
56K
Q769
2SC1815Y
10.6
6.1
5.4
Q779
2SC1815Y
or 2SC1740S
10.6
5.4
5.1
R764
47
C765
500VF J0.0047
C764
DEL.
R773
68K
D761
1SS133
D762
1SS133
R765
1/2RJ10
R772
68K
R778
1K
R766
47
C766
500VF J0.0047
Q760
2SA1015Y
5.0
4.8
0
R767
1/2R220
C763
DEL.
R768
750
R769
1.2K
D763
1SS133
P703
3P SMK
DRIVE
NC
RETURN
TO VM COIL
(R)
R779
2R220

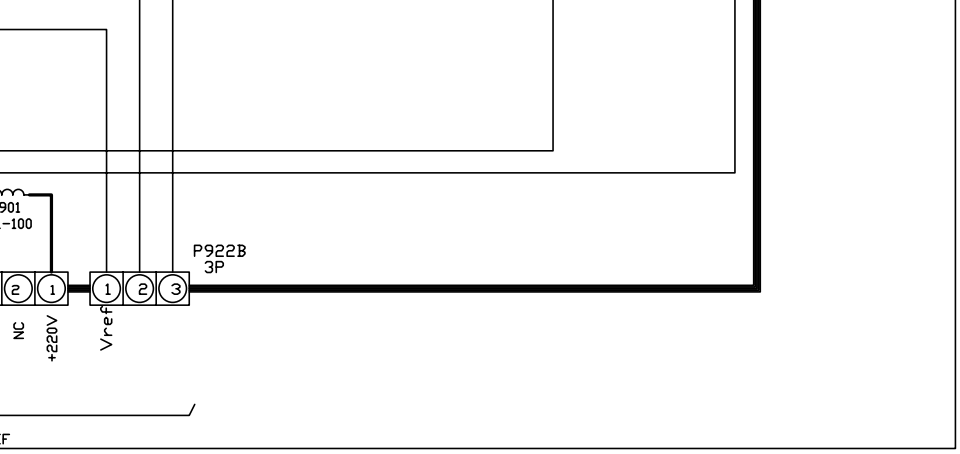
R985
820
P923A
3P
R986
820
P922A
3P

R986
820
P922A
3P


+9V-3
H.GND
Heater
DEF-GND
220V
P916A
11P
L901
PL-100
P917A
9P
HEATER
HEATER
NC
GND
HEATER GND
HEATER GND
NC
NC
+220V
Vref
TO DEF

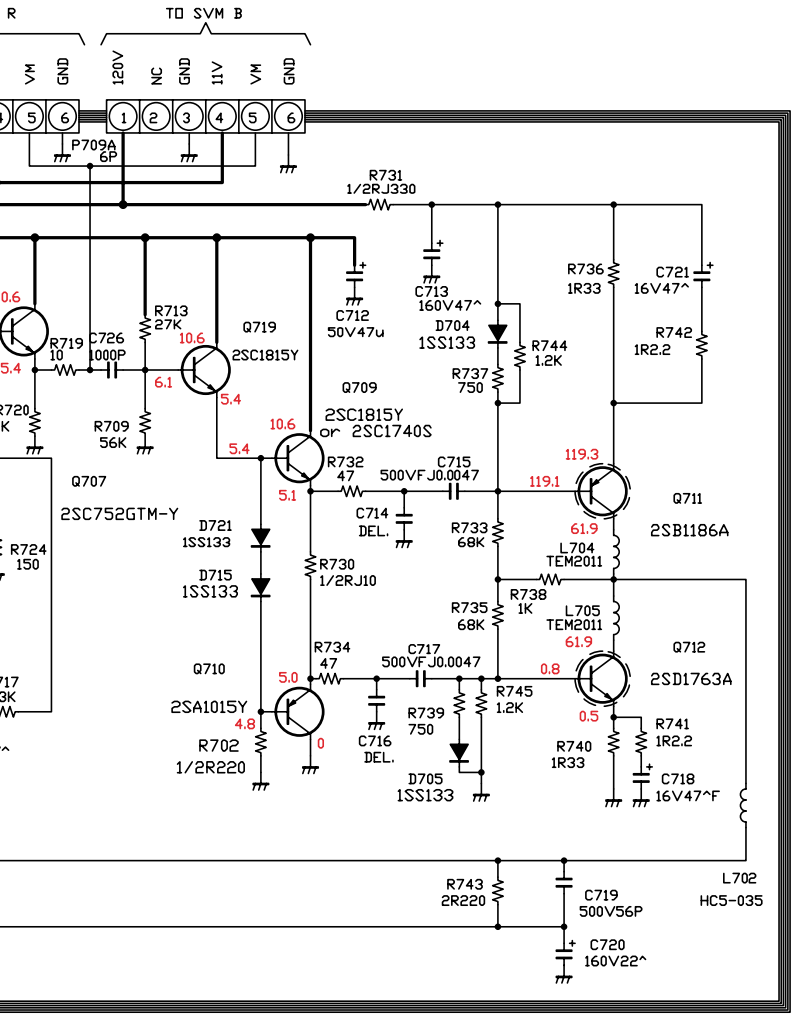

R763
2RJ330
C767
160V47^
D764
1SS133
R775
1.2K
R774
750
R776
1R33
C768
16V47^
R777
1R2.2
815Y
SC1740S
C765
500VF J0.0047
119.3
119.1
Q761
2SB1186A
R773
68K
61.9
L764
TEM2011
R778
1K
R772
68K
L765
TEM2011
61.9
C766
500VF J0.0047
Q771
2SD1763A
0.8
R769
1.2K
R768
750
0.5
R771
1R2.2
R770
1R33
C769
16V47^F
D763
1SS133
R779
2R220
C770
500V56P
L766
HC5-035
C771
160V22^

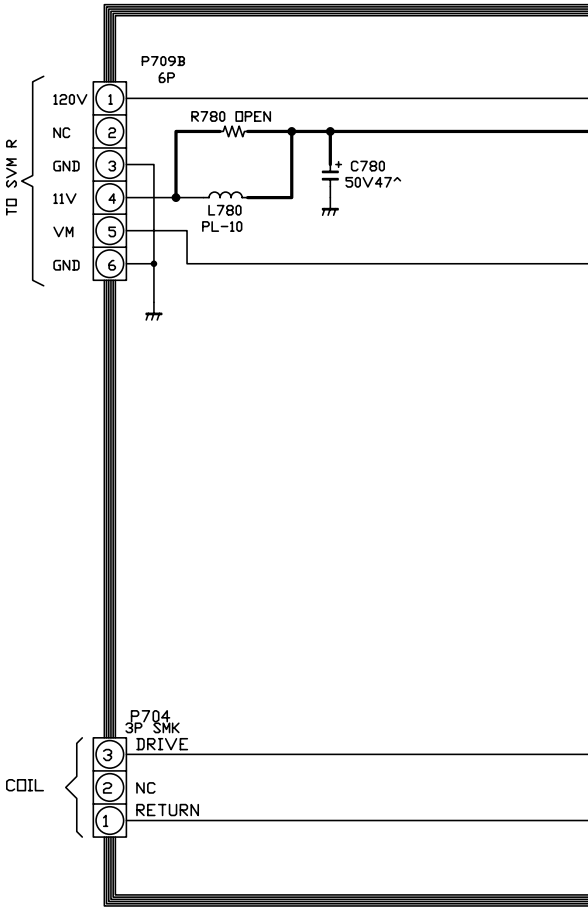

M034Z
SVM G
TO SVM R
120V
NC
GND
11V
VM
GND
P708A
6P
P709A
6P
P706B
4P
120V
TO POWER
NC
GND
+11V
L701
10^
R714
OPEN
C707
50v47^
R725
1.5k
10.6
6.0
Q720
2SC1815Y
R719
10
C726
1000P
5.4
6.1
P707B
3P
VM
GND
TO RGB-G
C704
103Z
Q706
2SC1815Y
8.9
1.5
R718
100
0.8
6.0
R723
100
0.8
0.1
R722
1/2R470
C722
82P
R724
150
R720
1K
R709
56K
Q707
2SC752GTM-Y
R716
27K
R717
33K
R715
33K
C705
50V4.7^
P705
3P SMK
DRIVE
TO VM COIL
(G)
NC
RETURN

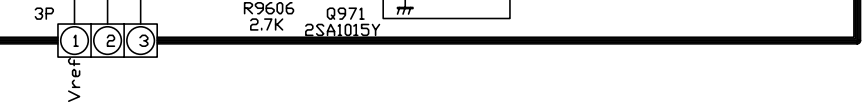

P922B
3P
NC
+220V
Vref

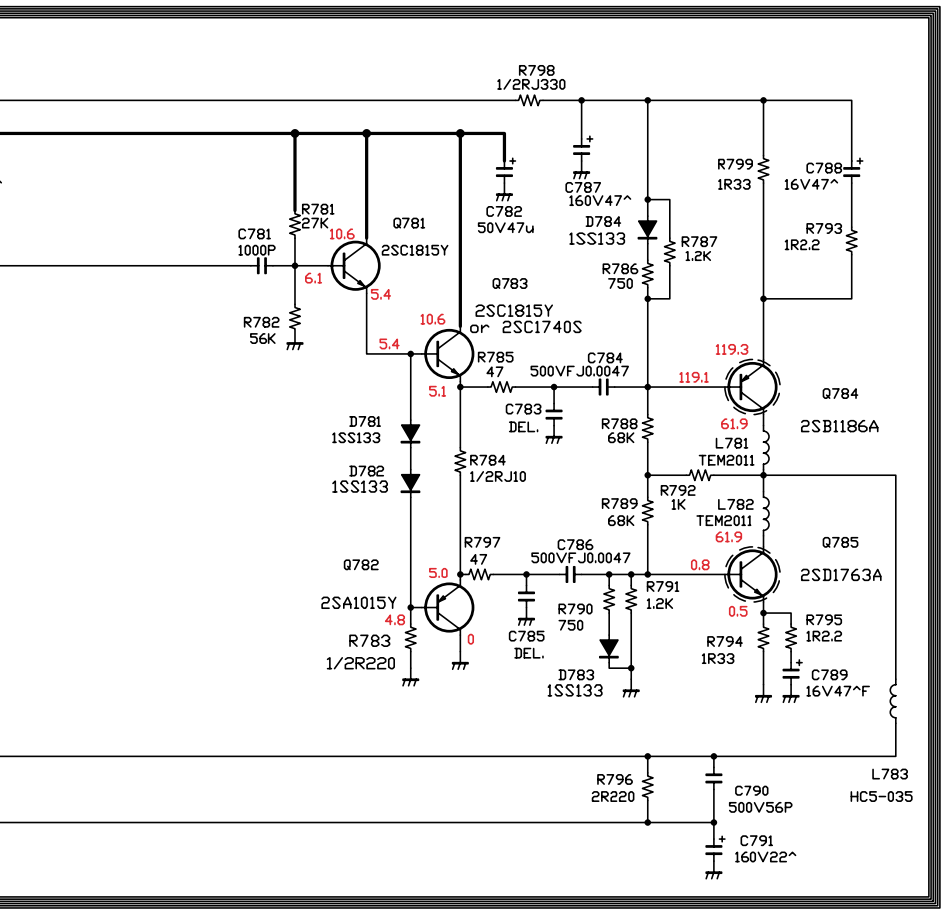
3P
Vref

M036Z
SVM B


R
TO SVM B
VM
GND
120V
NC
GND
11V
VM
GND
P709A
6P
R731
1/2RJ330
C712
50V47u
C713
160V47^
D704
1SS133
R744
1.2K
R736
1R33
C721
16V47^
R742
1R2.2
R737
750
Q709
2SC1815Y
or 2SC1740S
R719
10
C726
1000P
R713
27K
Q719
2SC1815Y
R709
56K
R720
Q707
2SC752GTM-Y
R732
47
C715
500VFJ0.0047
C714
DEL.
R733
68K
L704
TEM2011
Q711
2SB1186A
R724
150
D721
1SS133
D715
1SS133
R730
1/2RJ10
R738
1K
R735
68K
L705
TEM2011
Q712
2SD1763A
R734
47
C717
500VFJ0.0047
Q710
2SA1015Y
R745
1.2K
R739
750
C716
DEL.
D705
1SS133
R740
1R33
R741
1R2.2
C718
16V47^F
R702
1/2R220
R743
2R220
C719
500V56P
C720
160V22^
L702
HC5-035


TO SVM R
P709B
6P
120V
NC
GND
11V
VM
GND
R780 OPEN
C780
50V47^
L780
PL-10
P704
3P SMK
DRIVE
NC
RETURN
TO VM COIL
(B)





CRT-D SVM
43A9UE
43A9/50A9/61A9 SERIES

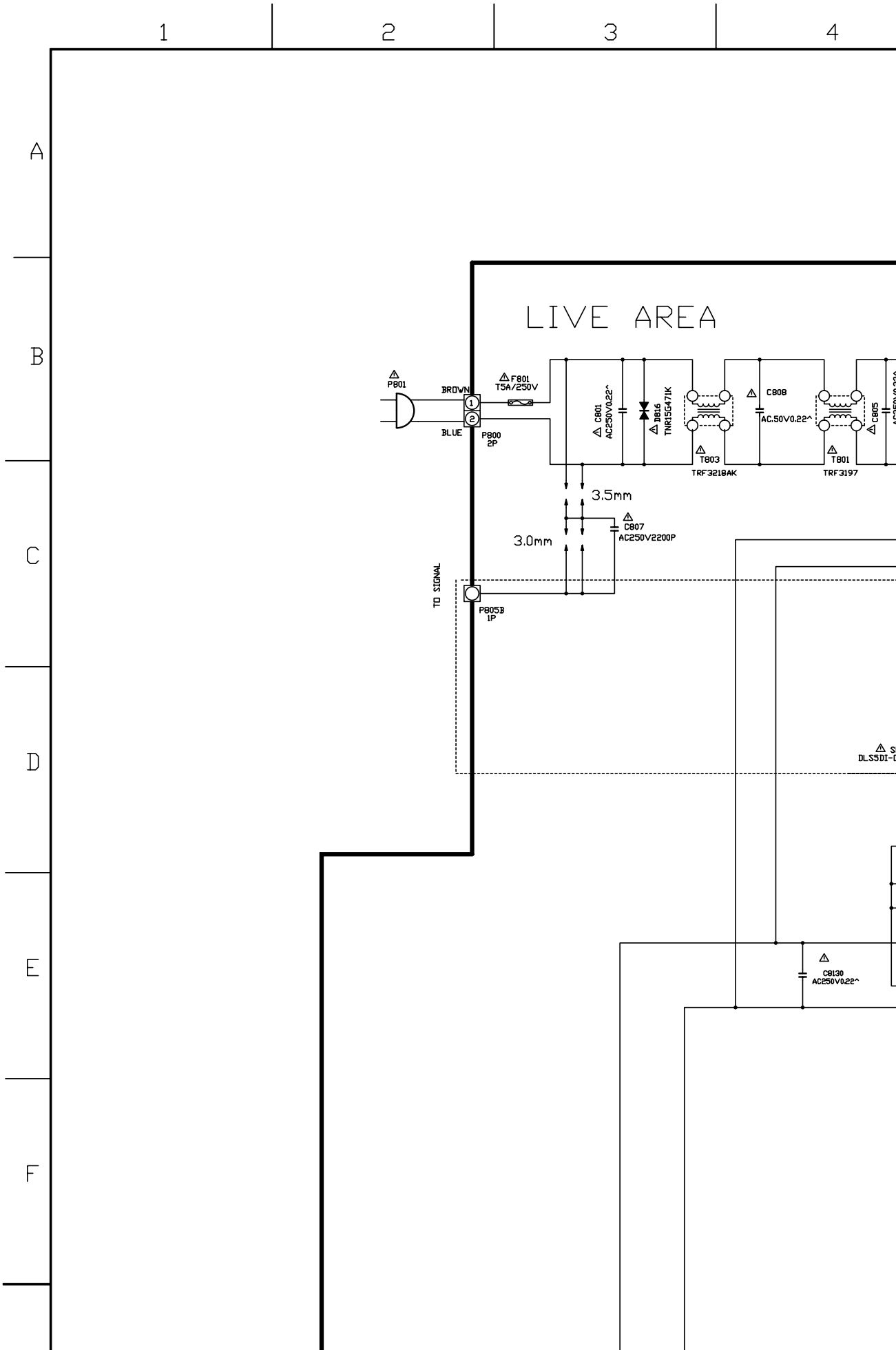
U801 POWER
PD0184

LIVE AREA

LIVE AREA

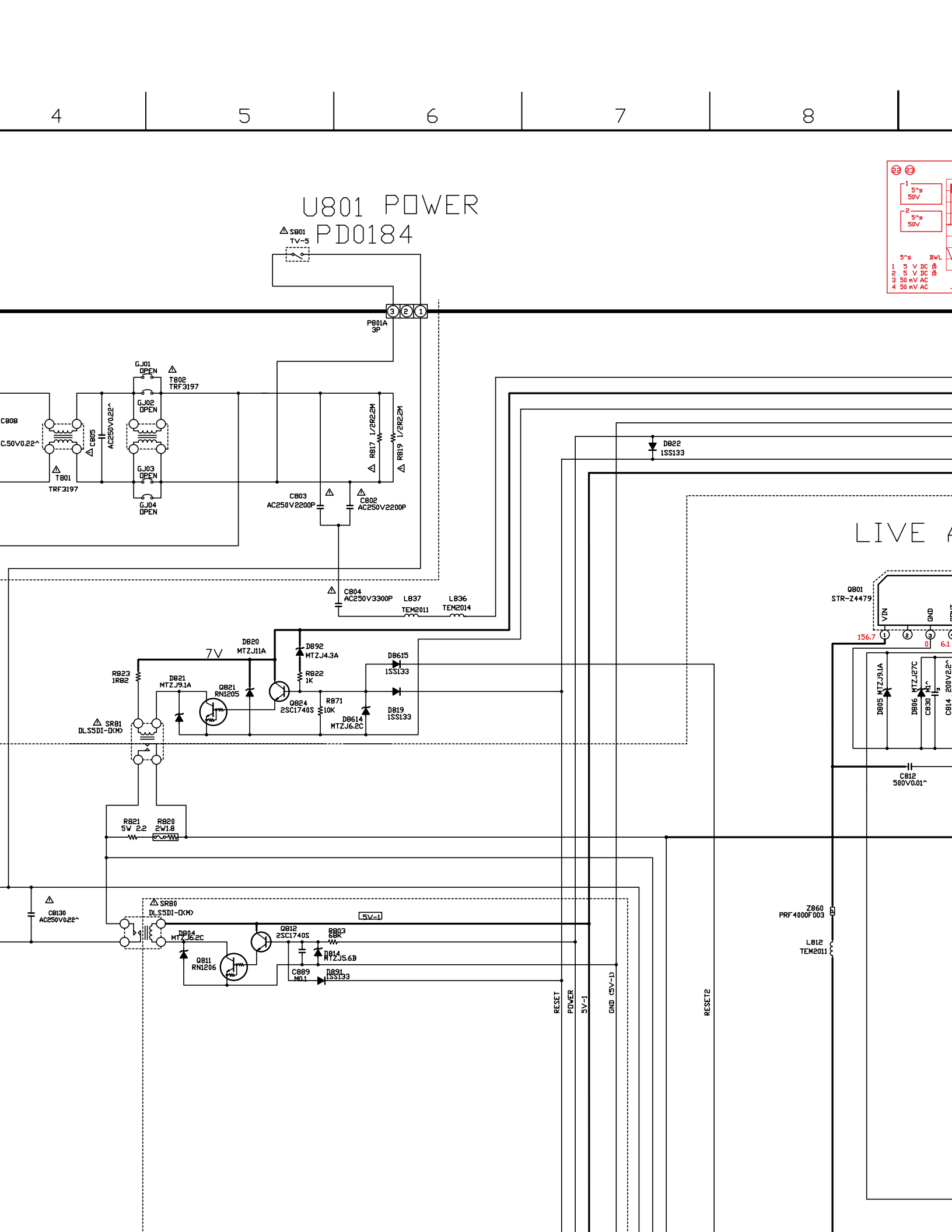
LIVE AREA

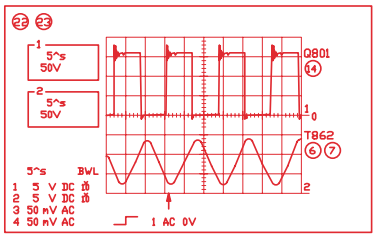
POWER
43A9UE
43A9/50A9/61A9 SERIES


1
2
3
4
A
B
C
D
E
F
LIVE AREA
P801
BROWN
BLUE
F801
T5A/250V
P800
2P
C801
AC250V0.22^
D816
TNR15G471K
T803
TRF3218AK
C808
AC.50V0.22^
T801
TRF3197
C805
3.5mm
3.0mm
C807
AC250V2200P
TD SIGNAL
P805B
1P
C8130
AC250V0.22^

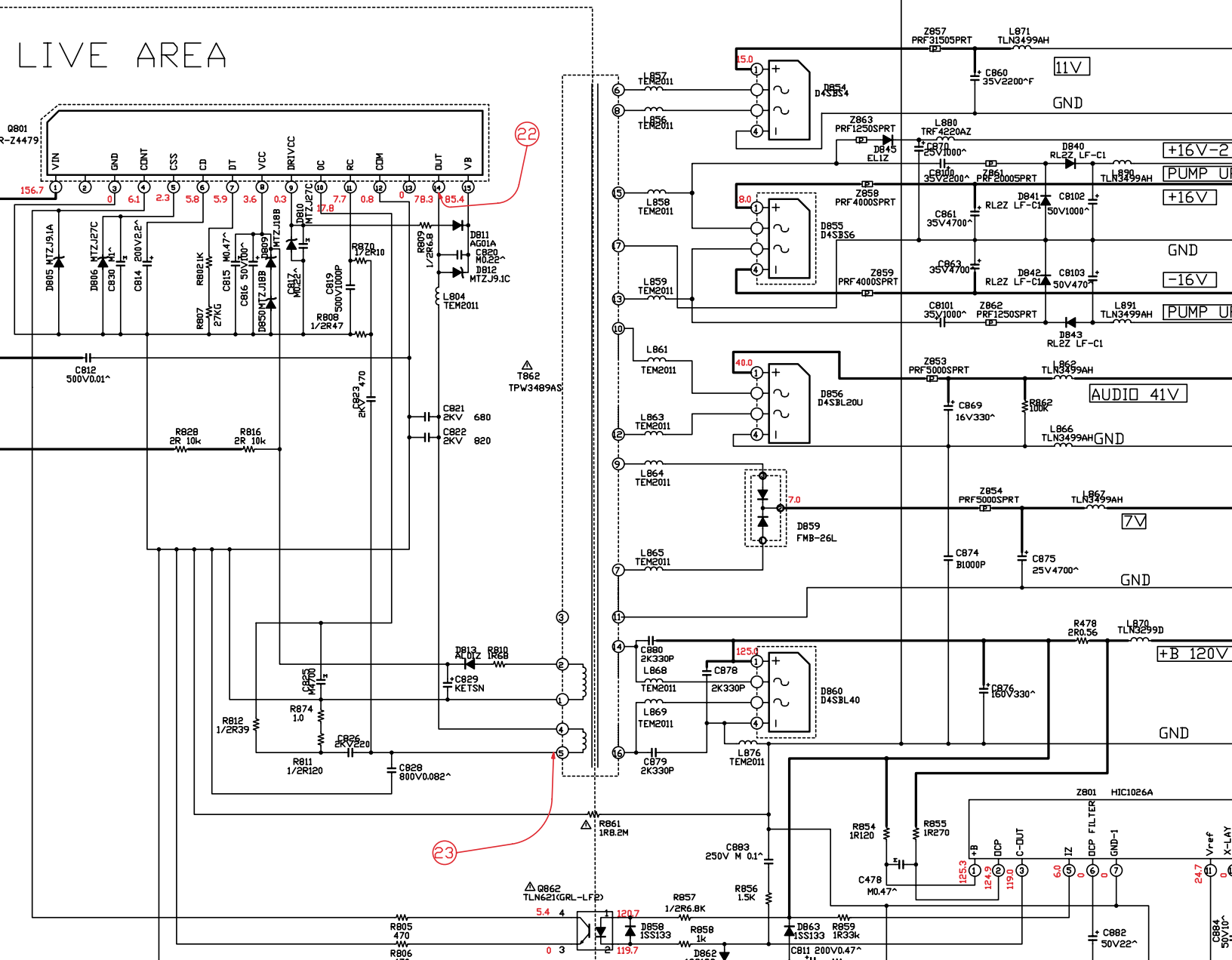
U801 POWER

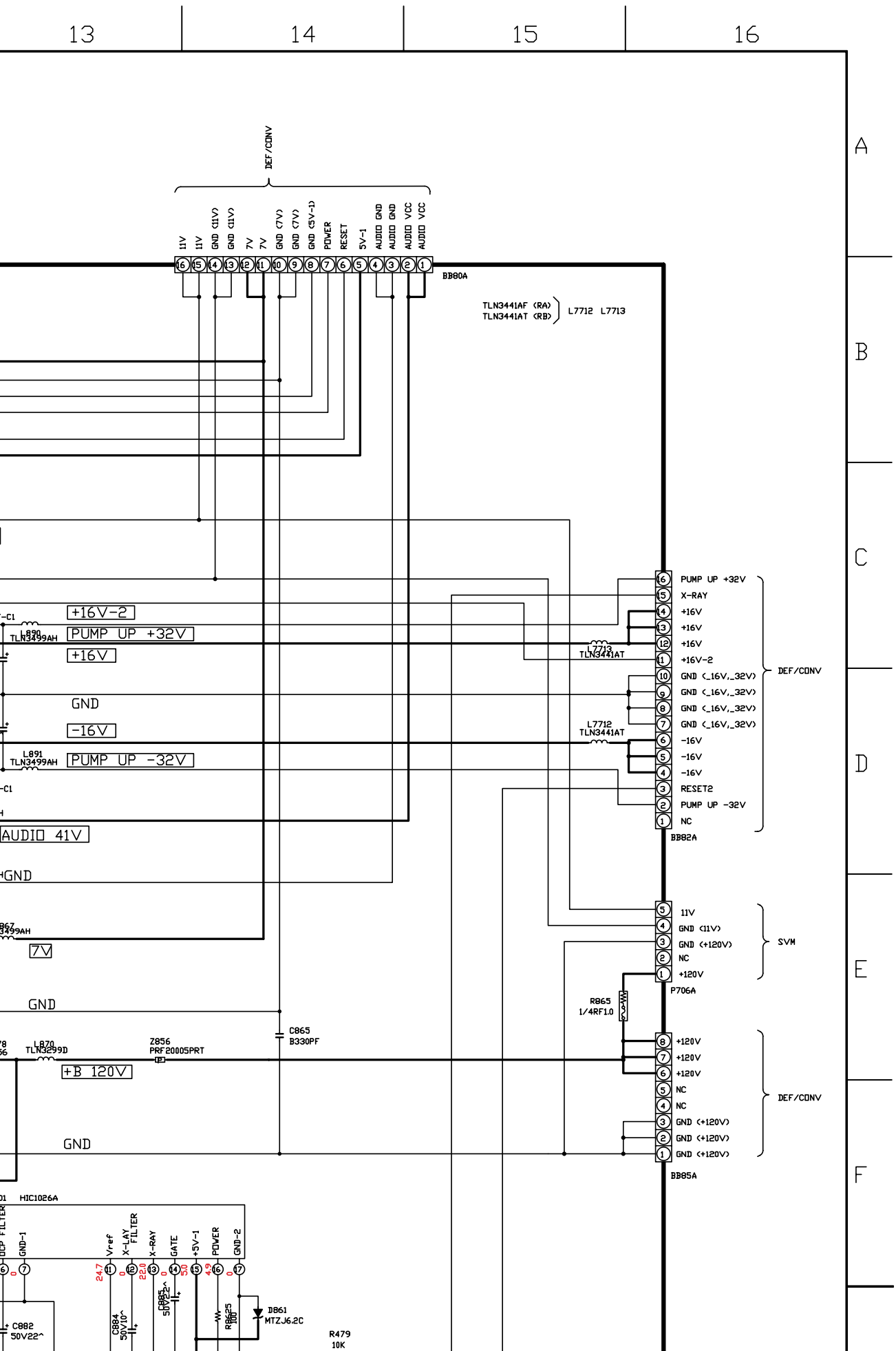
PD0184

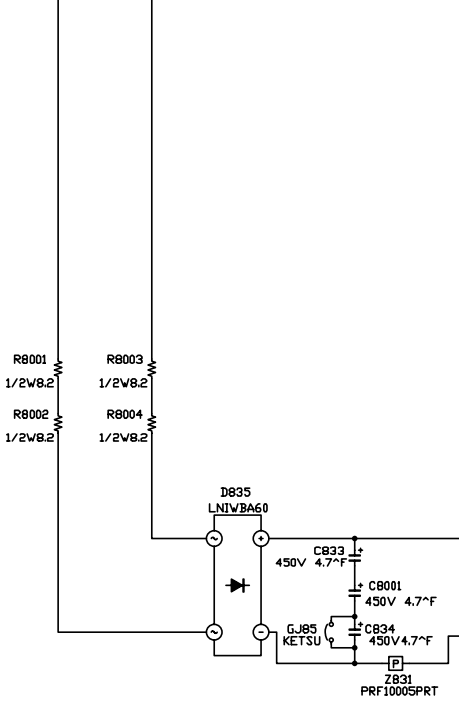


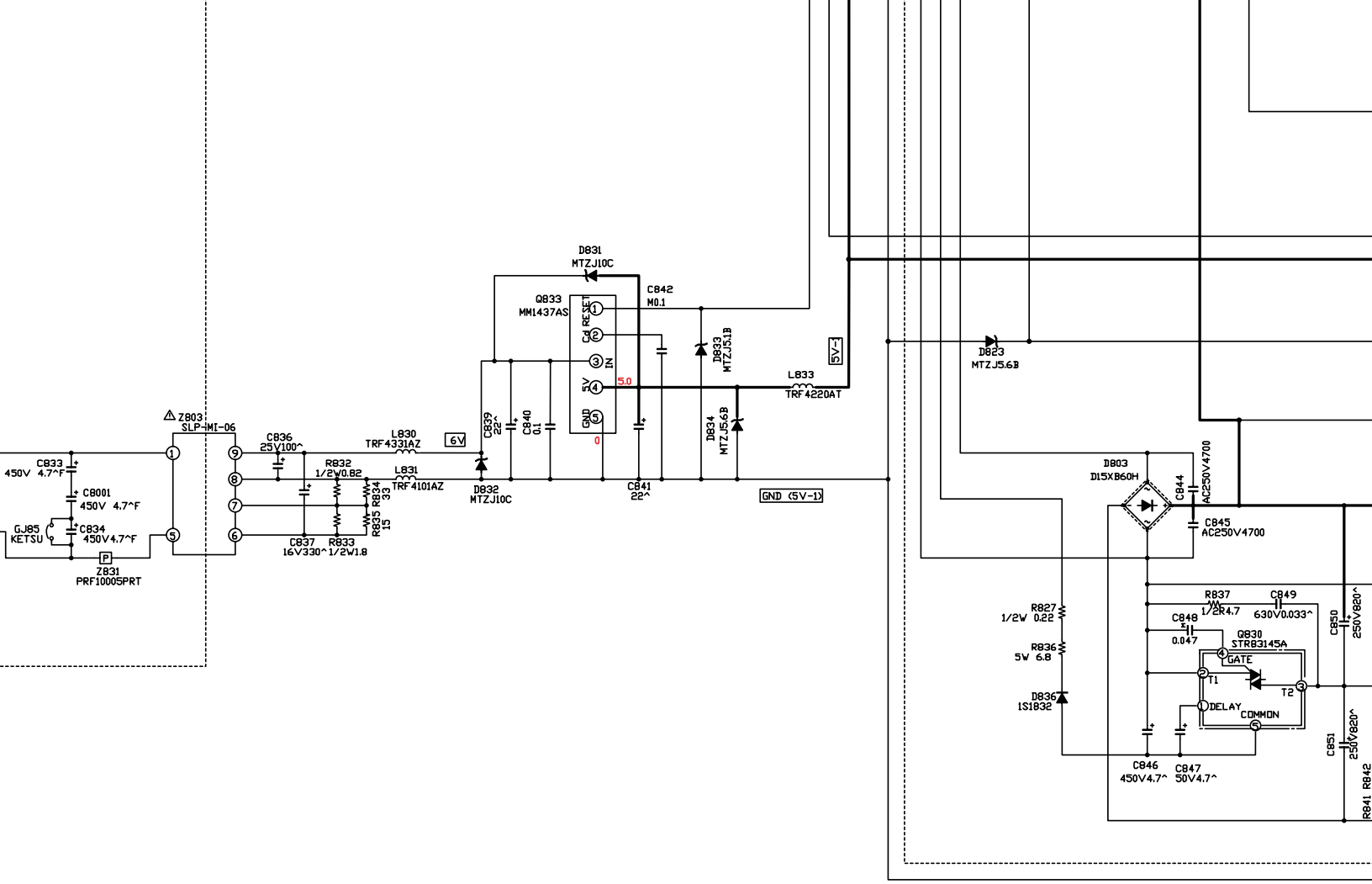

22 23
1
5^s
50V
2
5^s
50V
Q801
14
1
0
T862
6 7
2
5^s BWL
1 5 V DC BW
2 5 V DC BW
3 50 mV AC
4 50 mV AC
1 AC 0V

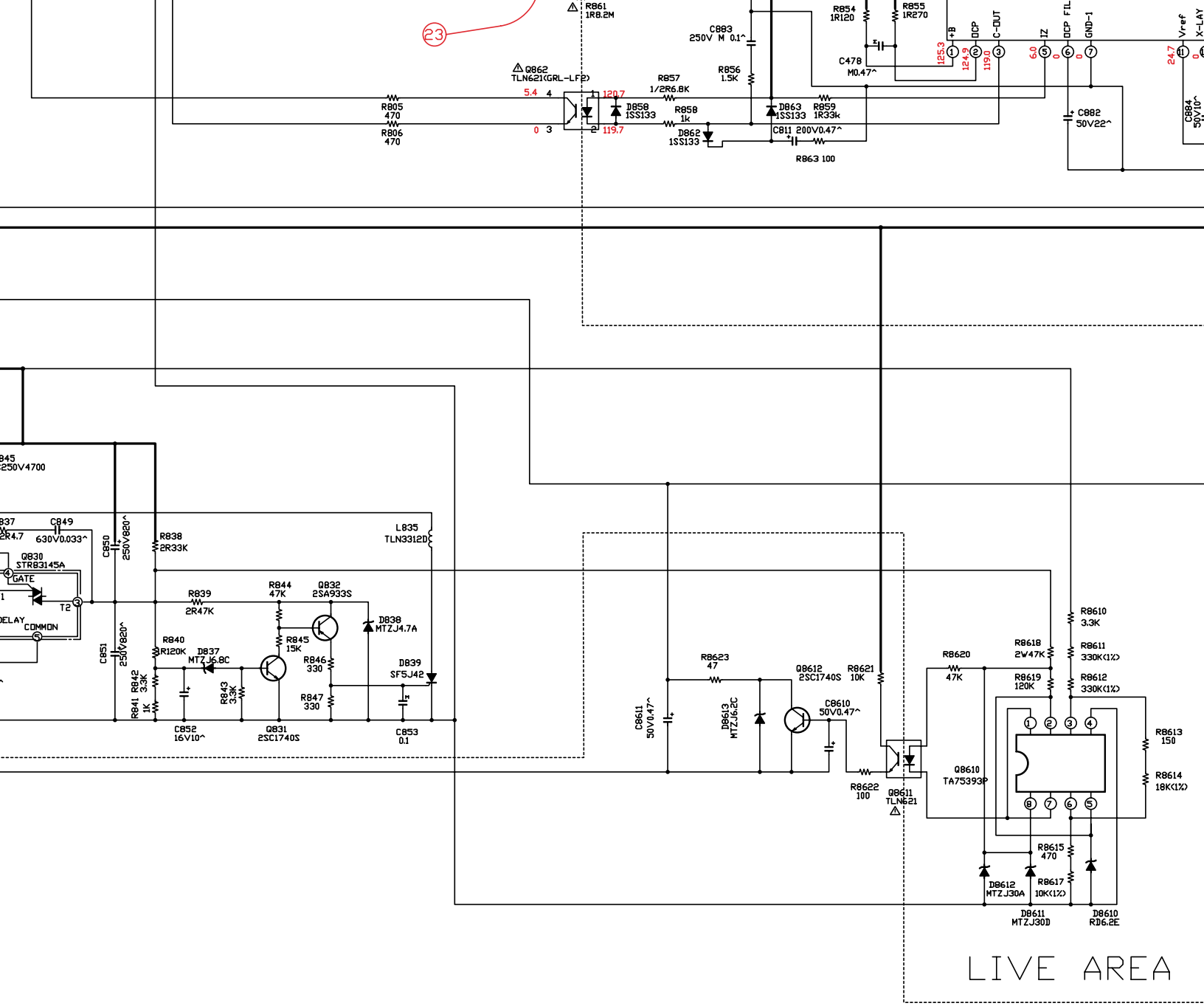
LIVE AREA


Q801
R-Z4479
VIN GND CONT CSS CD DT VCC DRIVCC OC RC COM OUT VB
156.7 0 6.1 2.3 5.8 5.9 3.6 0.3 17.8 7.7 0.8 0 78.3 85.4
22
D805 MTZJ9.1A
D806 MTZJ27C
C830 M1^
C814 200V2.2^
R802 1K
C815 M0.47^
C816 50V100^
D809 MTZJ18B
D850 MTZJ18B
D810 MTZJ27C
C817 M022^
C819 500V1000P
R807 27KG
R808 1/2R47
R870 1/2R10
R809 1/2R6.8
D811 AG01A
C820 M022^
D812 MTZJ9.1C
L804 TEM2011
C812 500V0.01^
T862 TPW3489AS
C823 470 2KV
C821 2KV 680
C822 2KV 820
R828 2R 10k
R816 2R 10k
D813 AL01Z
R810 1R6B
C829 KETSN
C825 M4700
R874 1.0
R812 1/2R39
C826 2KV220
R811 1/2R120
C828 800V0.082^
23
R861 1R8.2M
C883 250V M 0.1^
R854 1R120
R855 1R270
C478 M0.47^
Z801 HIC1026A
+B DCP C-OUT IZ DCP FILTER GND-1 Vref X-LAY
125.3 124.9 119.0 6.0 0 0 24.7 0
Q862 TLN621(GRL-LF2)
5.4 4 0 3
120.7 119.7
D858 1SS133
R858 1k
R857 1/2R6.8K
R856 1.5K
D863 1SS133
R859 1R33k
C811 200V0.47^
D862
C882 50V22^
C884 50V10^
L857 TEM2011
L856 TEM2011
L858 TEM2011
L859 TEM2011
L861 TEM2011
L863 TEM2011
L864 TEM2011
L865 TEM2011
L868 TEM2011
L869 TEM2011
L876 TEM2011
15.0 D854 D4SBS4
8.0 D855 D4SBS6
40.0 D856 D4SBL20U
7.0 D859 FMB-26L
125.0 D860 D4SBL40
C880 2K330P
C878 2K330P
C879 2K330P
Z857 PRF31505PRT
L871 TLN3499AH
C860 35V2200^F
11V
GND
Z863 PRF1250SPRT
D845 EL1Z
L880 TRF4220AZ
C870 25V1000^
D840 RL2Z LF-C1
+16V-2
Z858 PRF4000SPRT
C8100 35V2200^
Z861 PRF2000SPRT
L870 TLN3499AH
PUMP UP
D841 RL2Z LF-C1
C8102 50V1000^
+16V
C861 35V4700^
GND
Z859 PRF4000SPRT
C863 35V4700^
D842 RL2Z LF-C1
C8103 50V470^
-16V
C8101 35V1000^
Z862 PRF1250SPRT
L891 TLN3499AH
PUMP UP
D843 RL2Z LF-C1
Z853 PRF5000SPRT
L862 TLN3499AH
AUDIO 41V
C869 16V330^
R862 100R
L866 TLN3499AH
GND
Z854 PRF5000SPRT
L867 TLN3499AH
7V
C874 B1000P
C875 25V4700^
GND
R478 2R0.56
L870 TLN3499D
+B 120V
C876 160V330^
GND

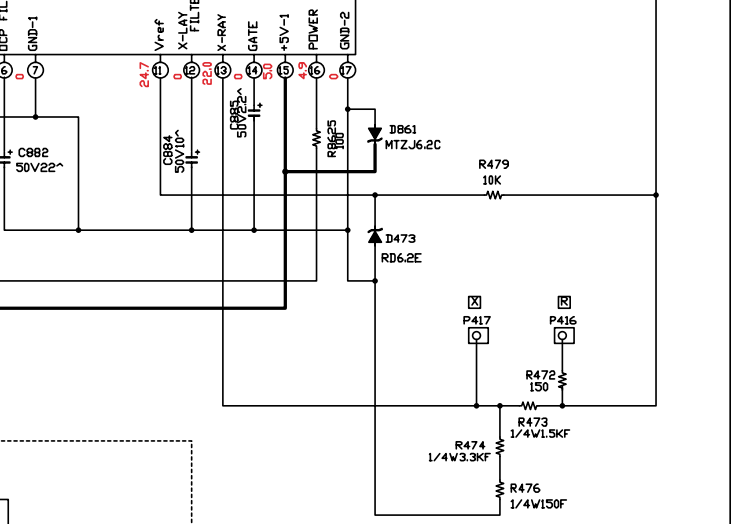

13
14
15
16
A
B
C
D
E
F
DEF/CONV
11V
11V
GND (11V)
GND (11V)
7V
7V
GND (7V)
GND (7V)
GND (5V-1)
POWER
RESET
5V-1
AUDIO GND
AUDIO GND
AUDIO VCC
AUDIO VCC
BB80A
TLN3441AF (RA)
TLN3441AT (RB)
L7712 L7713
+16V-2
PUMP UP +32V
+16V
GND
-16V
PUMP UP -32V
AUDIO 41V
GND
7V
GND
+B 120V
GND
L870
TLN3499AH
L891
TLN3499AH
L870
TLN3499D
Z856
PRF20005PRT
C865
B330PF
L7713
TLN3441AT
L7712
TLN3441AT
PUMP UP +32V
X-RAY
+16V
+16V
+16V
+16V-2
GND (-16V,-32V)
GND (-16V,-32V)
GND (-16V,-32V)
GND (-16V,-32V)
-16V
-16V
-16V
RESET2
PUMP UP -32V
NC
DEF/CONV
BB82A
11V
GND (11V)
GND (+120V)
NC
+120V
SVM
P706A
R865
1/4RF1.0
+120V
+120V
+120V
NC
NC
GND (+120V)
GND (+120V)
GND (+120V)
DEF/CONV
BB85A
HIC1026A
GND-1
V-ref
X-LAY FILTER
X-RAY
GATE
+5V-1
POWER
GND-2
C882
50V22^
C884
50V10^
C885
50V22^
R8625
100
DB61
MTZJ6.2C
R479
10K

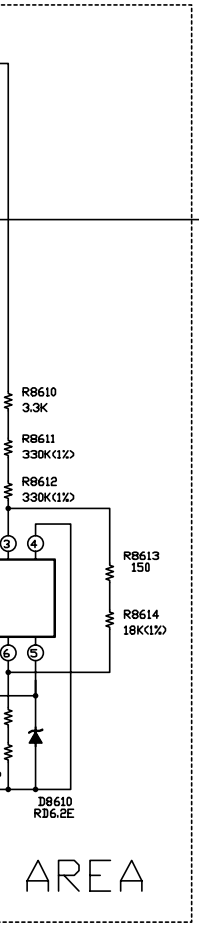

R8001
1/2W8.2
R8002
1/2W8.2
R8003
1/2W8.2
R8004
1/2W8.2
D835
LNIWBA60
C833
450V 4.7^F
C8001
450V 4.7^F
GJ85
KETSU
C834
450V4.7^F
P
Z831
PRF10005PRT


D831
MTZJ10C
Q833
MM1437AS
RESET
IN
5V
GND
C842
M0.1
D833
MTZJ5.1B
L833
TRF4220AT
5V-1
D823
MTZJ5.6B
D834
MTZJ5.6B
C839
22^
C840
0.1
C841
22^
5.0
0
Z803
SLP-MI-06
C836
25V100^
L830
TRF4331AZ
6V
R832
1/2W0.82
L831
TRF4101AZ
D832
MTZJ10C
R834
33
R835
15
C837
16V330^
R833
1/2W1.8
C833
450V 4.7^F
C8001
450V 4.7^F
GJ85
KETSU
C834
450V4.7^F
Z831
PRF10005PRT
GND (5V-1)
D803
D15XB60H
C844
AC250V4700
C845
AC250V4700
R827
1/2W 0.22
R836
5W 6.8
D836
1S1832
R837
1/2R4.7
C849
630V0.033^
C848
0.047
Q830
STR83145A
GATE
T1
T2
DELAY
COMMON
C850
250V820^
C851
250V820^
C846
450V4.7^
C847
50V4.7^
R841
R842


R861 1R8.2M
C883 250V M 0.1^
R854 1R120
R855 1R270
C478 M0.47^
+B
DCP
C-OUT
IZ
DCP FIL
GND-I
Vref
X-LAY
125.3
124.9
119.0
6.0
0
0
24.7
Q862 TLN621(GRL-LF2)
5.4
120.7
119.7
0
R857 1/2R6.8K
R856 1.5K
R805 470
R806 470
D858 1SS133
R858 1k
D862 1SS133
D863 1SS133
R859 1R33k
C811 200V0.47^
R863 100
C882 50V22^
C884 50V10^
L835 TLN3312D
R838 2R33K
C850 250V820^
C849 630V0.033^
R837 2R4.7
Q830 STR83145A
GATE
T2
COMMON
DELAY
R839 2R47K
R844 47K
Q832 2SA933S
D838 MTZJ4.7A
R840 3R120K
D837 MTZJ6.8C
R845 15K
R846 330
R847 330
D839 SF5J42
C851 250V820^
R841 3.3K
R842 3.3K
R843 3.3K
C852 16V10^
Q831 2SC1740S
C853 0.1
R8623 47
Q8612 2SC1740S
R8621 10K
C8611 50V0.47^
D8613 MTZJ6.2C
C8610 50V0.47^
R8622 100
Q8611 TLN621
R8620 47K
R8618 2W47K
R8619 120K
R8610 3.3K
R8611 330K(1%)
R8612 330K(1%)
R8613 150
R8614 18K(1%)
Q8610 TA75393P
R8615 470
R8617 10K(1%)
D8612 MTZJ30A
D8611 MTZJ30D
D8610 RD6.2E
LIVE AREA

9	10	11	12	13





AREA

POWER
43A9UE
43A9/50A9/61A9 SERIES

TOSHIBA

FILE NO. 043-200111
SUPPLEMENT

SERVICE MANUAL

COLOUR TELEVISION

A9PJ Chassis

43A9UE, 43A9UA

– SUMMARY –

This supplement is covers the added circuit of schematic diagram for above models.
Use this service manual together with the original service manual 43A9UE, 43A9UA (File No. 040-200104).

Nov., 2001

SCHEMATIC DIAGRAM

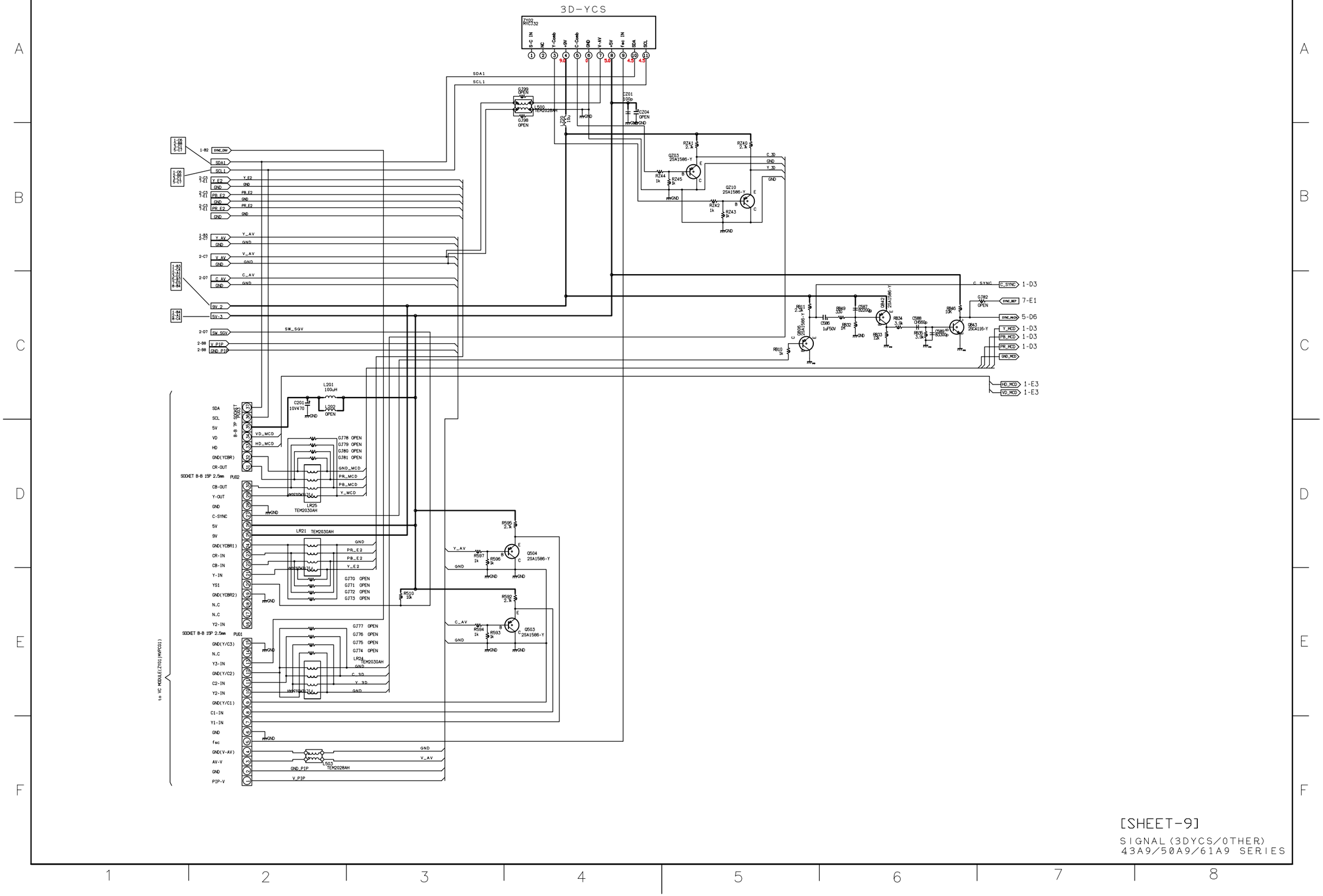
MODEL : 43A9UE / 43A9UA

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON THE MANUAL FOR THIS MODEL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on the MANUAL for this model. Do not degrade the safety of the receiver through improper servicing.

NOTE:

1. RESISTOR Resistance is shown in ohm [K = 1.000, M = 1.000.000]. All resistors are 1/6W and 5% tolerance carbon resistor, unless otherwise noted as the following marks.
   1/2R = Metal or Metal oxide of 1/2 watt 1/2S = Carbon compsistion of 1/2 watt
   1RF = Fuse resistor of 1 watt 10W = Cement of 10 watt
   K = ±10% G = ±2% F = ±1%
2. CAPACITOR Unless otherwise noted in schematic, all capacitor values less than 1 are expressed in μF, and the values more than 1 in pF.
   All capacitors are ceramic 50V, unless otherwise noted as the following marks.
   Electolytic capacitor Mylar capacitor
3. The parts indicated with " ⚠ " have special characteristics, and should be replaced with identical parts only.
4. Voltages read with DIGITAL MULTI-METER from point indicated to chassing ground, using a color bar signal with all controls at normal, line voltage 220 volts.
5. Waveforms are taken receiving color bar signal with enough sensitivity.
6. Voltage reading shown are nominal values and may vary ±20% except H.V.



[SHEET-9]

SIGNAL(3DYCS/OTHER)
43A9/50A9/61A9 SERIES

TOSHIBA CORPORATION
1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN

TOSHIBA

FILE NO. 043-200114

SERVICE MANUAL

COLOUR TELEVISION

A9PJ Chassis

61A9UM, 61A9UR

– SUMMARY –

61A9UM, 61A9UR are the same as 43A9UE except for the parts tabled on back of this sheet. Use this service manual together with the original service manual of 43A9UE, 43A9UA (File No. 040-200104).

Dec., 2001

REPLACEMENT PARTS LIST DIFFERENCES

Location No.	Part No.	Description
A101	23411644	Cabinet
A107	23549746	Rear Board Cover
A113	23845554	Wire Clip
A151	23064345	Case
A152	23946109	Packing, Bottom
A175	23436661	Caster
A201	23540273	Bezel Proper
A202	23540972	Front Panel Assy
A203	23527206	Speaker Grille R
A204	23527207	Speaker Grille L
A205	23540975	Control Panel Assy
A205A	23445565	Button, Power
A252	23428044	Door Proper
A254	23445308	Knob, Control
⚠A401	23540887	Back Cover
A506	23035412	Screw, BTB4X12SZN
A512	23035412	Screw, BTB4X12SZN
A517	23035412	Screw, BTB4X12SZN
A519	72471068	Screw, BIDT2 4X12BZ
A701	23064776	Case (61A9UM)
A701	23064777	Case (61A9UR)
A702	23946108	Packing
A703	23845450	Joint
C603	24591102	PF, 1000pF
C604	24591102	PF, 1000pF
C605	24073084	EL, 4.7μF, ±20%, 50V
C606	24073084	EL, 4.7μF, ±20%, 50V
C628	24797478	EL, 0.47μF, ±20%, 50V
CC100	24109102	CD, 1000pF, ±5%, 50V
CC101	24109102	CD, 1000pF, ±5%, 50V
CC102	24109102	CD, 1000pF, ±5%, 50V
CC103	24109102	CD, 1000pF, ±5%, 50V
CC104	24109102	CD, 1000pF, ±5%, 50V
CC105	24109102	CD, 1000pF, ±5%, 50V
CC106	24109102	CD, 1000pF, ±5%, 50V
CC107	24109102	CD, 1000pF, ±5%, 50V
CC108	24109102	CD, 1000pF, ±5%, 50V
CC109	24109102	CD, 1000pF, ±5%, 50V
CC110	24109102	CD, 1000pF, ±5%, 50V
CD105	24539124	PF, 0.12μF
CD106	24539104	PF, 0.1μF
CD107	24539104	PF, 0.1μF
DB01	23358541	Diode (LED), 4343VRT
DB02	23358503	Diode (LED), SCL003MC3FX
H001	23321415	Tuner, TEDE9-710A
H002	23148768	Module, MVCM34

Location No.	Part No.	Description
HY02	23148363	Module, MVCM13A
K501	23430796	Lenti Sheet, SCREEN61KKHL
K502	23837539	Fresnel Sheet, SCREEN61KH-F
K601	23430528	Mirror, MIRROR61H
⚠P801	23372010	Power Cord (61A9UM)
⚠P801	23372052	Power Cord (61A9UR)
Q710	23205123	Transistor, 2SA933ASQ
Q760	23205123	Transistor, 2SA933ASQ
Q782	23205123	Transistor, 2SA933ASQ
Q913	23205123	Transistor, 2SA933ASQ
Q916	23205123	Transistor, 2SA933ASQ
Q917	23205123	Transistor, 2SA933ASQ
Q962	23205123	Transistor, 2SA933ASQ
Q971	23205123	Transistor, 2SA933ASQ
Q972	23205123	Transistor, 2SA933ASQ
Q973	23205123	Transistor, 2SA933ASQ
QB01	23205123	Transistor, 2SA933ASQ
R601	24011122	Chip 1200ohm, 1/20W
R602	24011122	Chip 1200ohm, 1/20W
R1064	24000445	Chip Jumper, 1680 Type
R7853	24011182	Chip 1800ohm, 1/20W
R7854	24011182	Chip 1800ohm, 1/20W
✻M021Z	23787030	RMT IN Board, PD0422-1
✻M022Z	23787031	FRONT IN Board, PD0422-2
✻M023Z	23787032	FRONT CONT Board, PD0422-3
✻M031Z	23786576	CRT-D/R Board, PD0200-1
✻M032Z	23786577	CRT-D/G Board, PD0200-2
✻M033Z	23786578	CRT-D/B Board, PD0200-3
✻M034Z	23786579	SVM-G Board, PD0200-4
✻M035Z	23786580	SVM-R Board, PD0200-5
✻M036Z	23786581	SVM-B Board, PD0200-6
✻U401	23786413	DEF/CONV Board, PD0187
✻U601	23786346	WOW Board, PD0143
✻U901	23786424	SIGNAL Board, PD0198
⚠V901R	23008382	Protector Coupling 61R
⚠V902G	23008383	Protector Coupling 61G
⚠V903B	23008384	Protector Coupling 61B
W661	23351183	Speaker, SPK-1424AM
W662	23351183	Speaker, SPK-1424AM
Y101	23565464	Owner's Manual, English/Arabic, 61A9UM
Y101	23565465	Owner's Manual, English/Russian, 61A9UR
Y108	23122780	AC Adaptor, 2P (61A9UM)
ZC01	23148793	Module, MDCC13, D-CONVER

TOSHIBA CORPORATION

1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN

TOSHIBA

FILE NO. 043-200107

SERVICE MANUAL

COLOUR TELEVISION

A9PJ Chassis

43A9UM, 43A9UR

– SUMMARY –

43A9UM, 43A9UR are the same as 43A9UE except for the parts tabled on back of this sheet. Use this service manual together with the original service manual of 43A9UE, 43A9UA (File No. 040-200104).

Oct., 2001

REPLACEMENT PARTS LIST DIFFERENCES

Location No.	Part No.	Description
A701	23064742	Case (43A9UM)
A701	23064701	Case (43A9UR)
CC100	24109102	Chip, 1000pF, ±10%
CC101	24109102	Chip, 1000pF, ±10%
CC102	24109102	Chip, 1000pF, ±10%
CC103	24109102	Chip, 1000pF, ±10%
CC104	24109102	Chip, 1000pF, ±10%
CC105	24109102	Chip, 1000pF, ±10%
CC106	24109102	Chip, 1000pF, ±10%
CC107	24109102	Chip, 1000pF, ±10%
CC108	24109102	Chip, 1000pF, ±10%
CC109	24109102	Chip, 1000pF, ±10%
CC110	24109102	Chip, 1000pF, ±10%
H001	23321416	Tuner, TEDE9-711A
H002	23148768	Module, MVCM34
HY02	23148363	Module, MVCM13A, IF
⚠P801	23372010	Power Cord (43A9UM)
⚠P801	23372052	Power Cord (43A9UR)
QA01	23009018	IC, 750010-174S
R1064	24000445	Chip Jumper, 1680 Type
✻U901	23786416	Signal Board, PD0190
Y101	23565511	Owner's Manual, English, 43A9UM
Y101R	23565368	Owner's Manual, English/Russian, 43A9UR
Y108	23122780	AC Adaptor, 2P (43A9UM)

TOSHIBA CORPORATION

1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN

TOSHIBA

FILE NO. 043-200108

SERVICE MANUAL

COLOUR TELEVISION

A9PJ Chassis

61A9UE, 61A9UA

– SUMMARY –

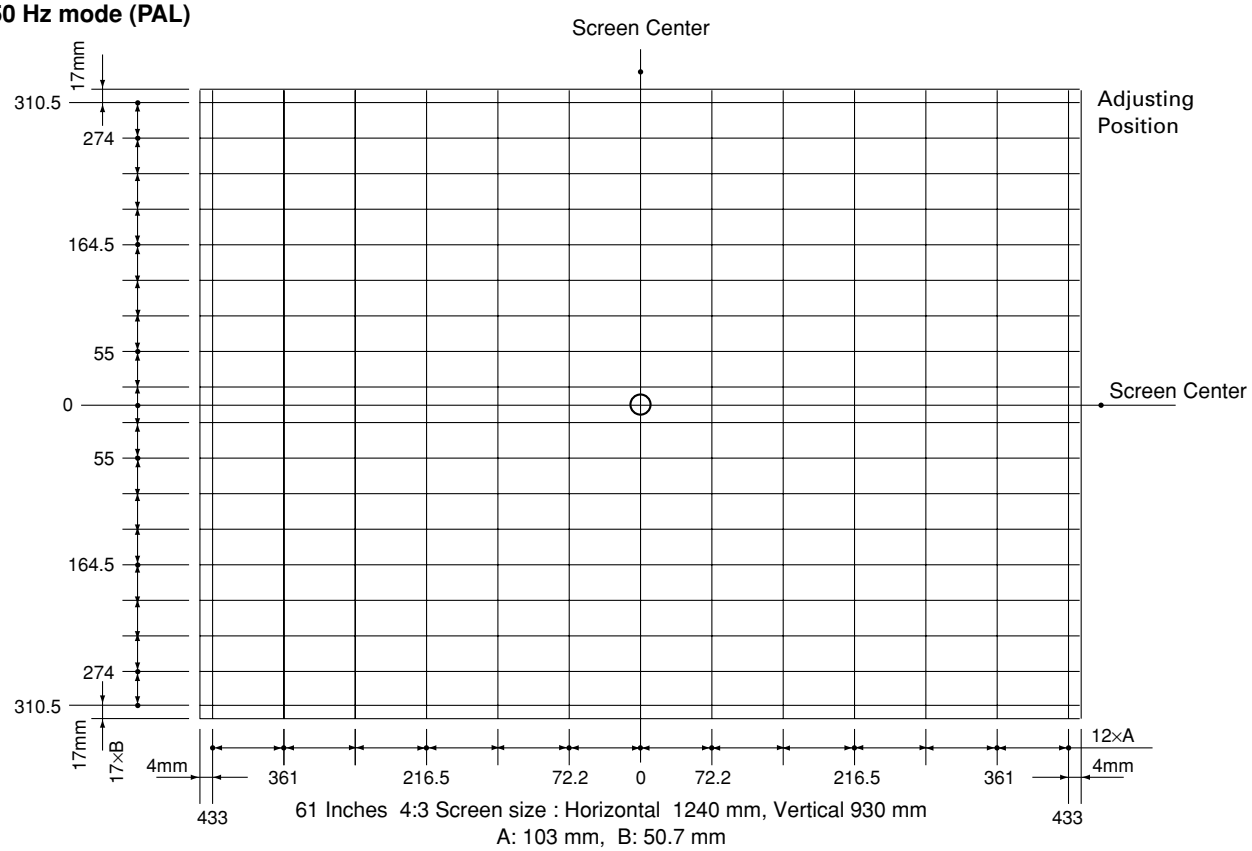
61A9UE, 61A9UA are the same as 43A9UE except for the parts and Convergence adustment and Mechanical disassembly tabled on back of this sheet.
Use this service manual together with the service manual of 43A9UE,43A9UA (File No. 040-200104).

Oct., 2001

CONVERGENCE ADJUSTMENT

4. ADJUSTING PICTURE DIMENSION (GREEN PICTURE) (61")

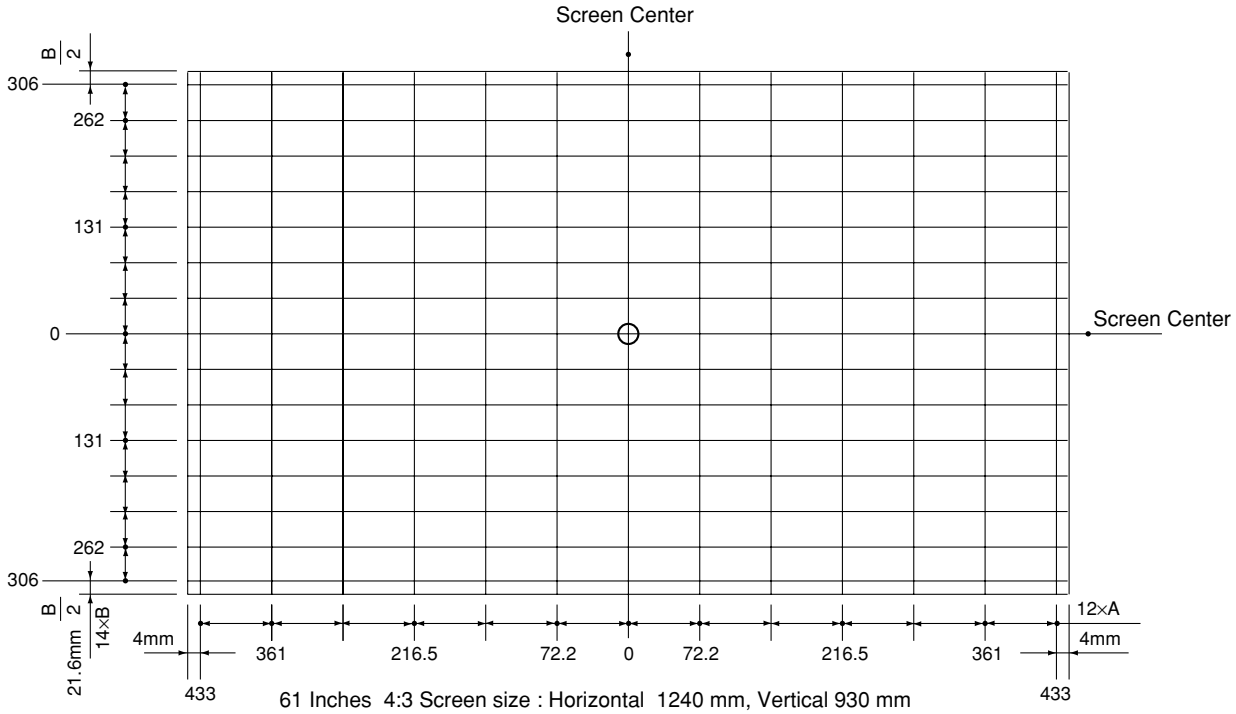
1. 50 Hz mode (PAL)



61 Inches 4:3 Screen size : Horizontal 1240 mm, Vertical 930 mm
A: 103 mm, B: 50.7 mm

○ mark : Center

2. 60 Hz mode (NTSC)



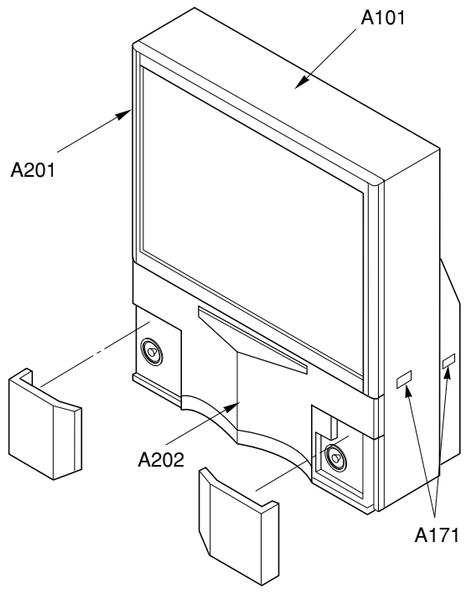
61 Inches 4:3 Screen size : Horizontal 1240 mm, Vertical 930 mm
A: 103 mm, B: 62 mm

○ mark : Center

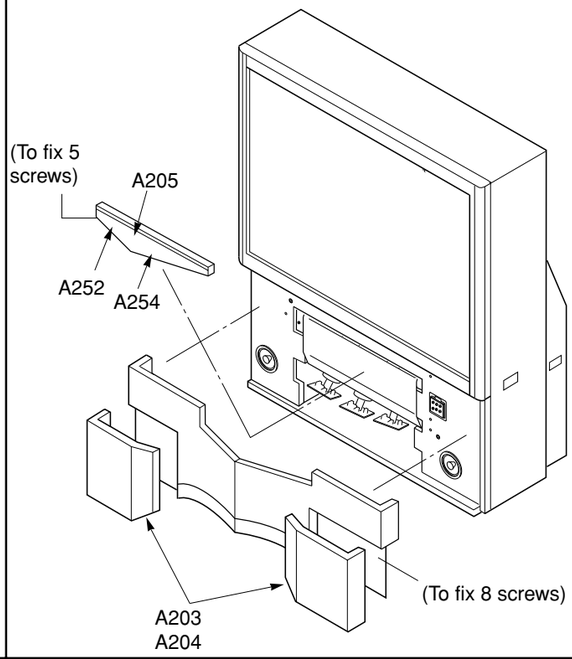
MECHANICAL DISASSEMBLY

61"

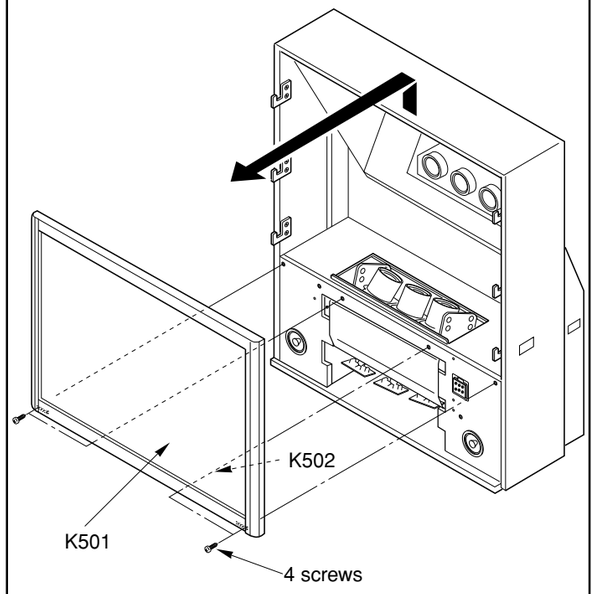
1 Speaker Grille Removal



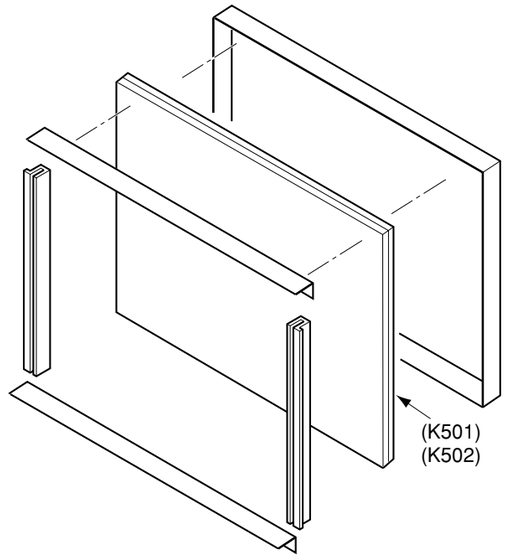
2 Control Panel Removal



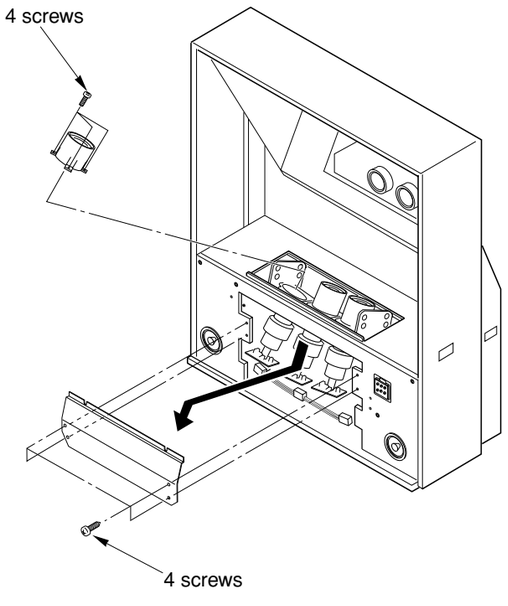
3 Front Mask Removal



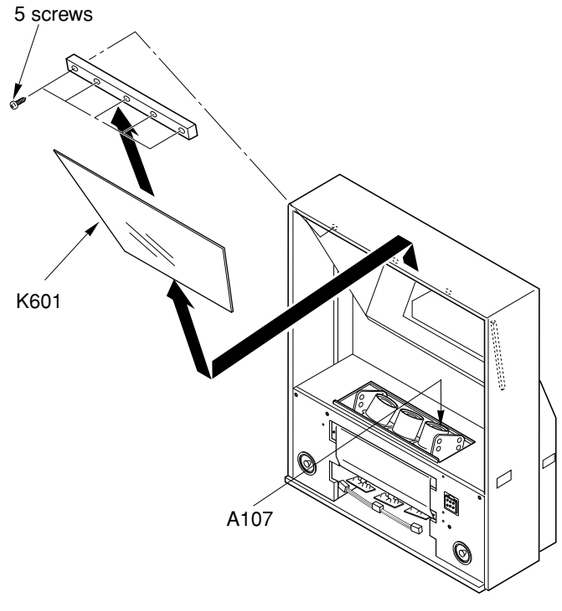
4 Mask Removal



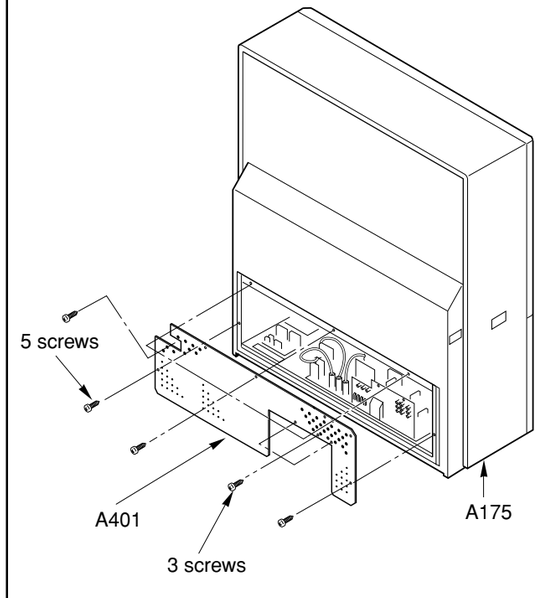
5 Shield Plate, Lens Removal



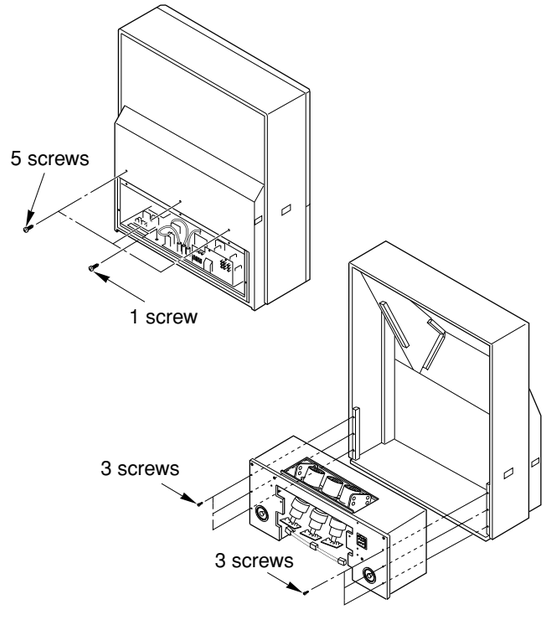
6 Mirror Removal



7 Back Board Removal



8 Light Box Removal



REPLACEMENT PARTS LIST DIFFERENCES

Location No.	Part No.	Description
A101	23411644	Cabinet, Wood Cabinet
A107	23549746	Rear Board Cover
A113	23845554	Wire Clip
A151	23064345	Carton, Case Bottom
A152	23946109	Packing, Bottom Packing
A175	23436661	Caster
A201	23540273	Bezel Proper
A202	23540972	Front Panel Assy
A203	23527206	Speaker Grille-R
A204	23527207	Speaker Grille-L
A205	23540975	Control Panel Assy
A205A	23445565	Button, Power
A252	23428044	Door Proper
A254	23445308	Knob, Control
A401	23540887	Cover, Mirror Cover
A701	23064703	Carton, Case Top (61A9UE)
A701	23064702	Carton, Case Top (61A9UA)
A702	23946108	Packing, Top Packing
A703	23845450	Joint
C603	24591102	PF, 1000pF
C604	24591102	PF, 1000pF
C605	24073084	EL, 4.7μF, ±20%, 50V
C606	24073084	EL, 4.7μF, ±20%, 50V
C628	24797478	EL, 0.47μF, ±20%, 50V
CD105	24539124	PF, 0.12μF
CD106	24539104	PF, 0.1μF
CD107	24539104	PF, 0.1μF
DB01	23358503	Diode (LED), SCL003MC3FX
DB02	23358503	Diode (LED), SCL003MC3FX
K501	23430796	Lenti Sheet, SCREEN61KKHL
K502	23837539	Fresnel Sheet, SCREEN61KH-F
K601	23430528	Mirror, MIRROR61H
P801	23372026	Power Cord (61A9UA)
Q710	23205123	Transistor, 2SA933ASQ
Q760	23205123	Transistor, 2SA933ASQ
Q782	23205123	Transistor, 2SA933ASQ
Q913	23205123	Transistor, 2SA933ASQ
Q916	23205123	Transistor, 2SA933ASQ
Q917	23205123	Transistor, 2SA933ASQ
Q962	23205123	Transistor, 2SA933ASQ
Q971	23205123	Transistor, 2SA933ASQ
Q972	23205123	Transistor, 2SA933ASQ
Q973	23205123	Transistor, 2SA933ASQ
QB01	23205123	Transistor, 2SA933ASQ
R601	24011122	Chip, 1200 ohm, 1/20W
R602	24011122	Chip, 1200 ohm, 1/20W
＊MZ21Z	23787030	Front Board, PD0422-1
＊MZ22Z	23787031	Front Board, PD0422-2
＊MZ23Z	23787032	Front Board, PD0422-3
＊MZ31Z	23786576	CRT-D/R Board, PD0200-1
＊MZ32Z	23786577	CRT-D/G Board, PD0200-2
＊MZ33Z	23786578	CRT-D/B Board, PD0200-3
＊MZ34Z	23786579	SVM-G Board, PD0200-4
＊MZ35Z	23786580	SVM-R Board, PD0200-5
＊MZ36Z	23786581	SVM-B Board, PD0200-6
＊U401	23786413	DEF/CONV Board, PD0187
＊U601	23786346	WOW Board, PD0143
＊U901	23789421	SIGNAL Board, PD0195
⚠V901R	23008382	Protector Copling 61R
⚠V902G	23008383	Protector Copling 61G
⚠V903B	23008384	Protector Copling 61B
W661	23351183	Speaker, SPK-1424AM
W662	23351183	Speaker, SPK-1424AM
Y101C	23565463	Owner's Manual, Mandarin/Canton, 61A9UE
Y101E	23565462	Owner's Manual, English, 61A9UE/61A9UA
ZC01	23148793	Module, MDCC13

TOSHIBA CORPORATION
1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN

TOSHIBA

FILE NO. 043-200110

SERVICE MANUAL

COLOUR TELEVISION

A9PJ Chassis

50A9UM, 50A9UR

– SUMMARY –

50A9UM, 50A9UR are the same as 43A9UE except for the parts tabled on back of this sheet. Use this service manual together with the original service manual of 43A9UE, 43A9UA (File No. 040-200104).

Nov., 2001

REPLACEMENT PARTS LIST DIFFERENCES

Location No.	Part No.	Description
A101	23411625	Cabinet
A113	23845554	Wire Clip
A151	23064648	Case
A152	23946277	Packing, Bottom
A153	23541049	Sheet
A201	23530058	Front Panel Assy
A203	23530061	Front Cover
A204	23530054	Front Grille Assy
A207	23077293	Bracket
A208	23077294	Bracket
A241	23445585	Button, Power
⚠A401	23540930	Back Cover
A402	23540887	Back Bord Cover
A512	23710127	Screw
A701	23064758	Case (50A9UM)
A701	23064759	Case (50A9UR)
A702	23946276	Packing, Top
A703	23845450	Joint
A706	23945056	Poly Cover
CC100	24109102	CD, 1000pF, ±5%, 50V
CC101	24109102	CD, 1000pF, ±5%, 50V
CC102	24109102	CD, 1000pF, ±5%, 50V
CC103	24109102	CD, 1000pF, ±5%, 50V
CC104	24109102	CD, 1000pF, ±5%, 50V
CC105	24109102	CD, 1000pF, ±5%, 50V
CC106	24109102	CD, 1000pF, ±5%, 50V
CC107	24109102	CD, 1000pF, ±5%, 50V
CC108	24109102	CD, 1000pF, ±5%, 50V
CC109	24109102	CD, 1000pF, ±5%, 50V

Location No.	Part No.	Description
CC110	24109102	CD, 1000pF, ±5%, 50V
H001	23321416	Tuner, TEDE9-711A
H002	23148768	Module, MVCM34
HY02	23148363	Module, MVCM13A
K501	23311934	Lenti Sheet, SCREEN50KLEL
K502	23430799	Fresnel Sheet, SCREEN50KKPF
K601	23430509	Mirror, MIRROR50H
⚠P801	23372010	Power Cord (50A9UM)
⚠P801	23372052	Power Cord (50A9UR)
QA01	23009018	IC, 750010-174S
R1064	24000445	Chip Jumper, 1680 Type
✻M031Z	23786570	CRT-D/R Board, PD0199-1
✻M032Z	23786571	CRT-D/G Board, PD0199-2
✻M033Z	23786572	CRT-D/B Board, PD0199-3
✻M034Z	23786573	SVM-G Board, PD0199-4
✻M035Z	23786574	SVM-R Board, PD0199-5
✻M036Z	23786575	SVM-B Board, PD0199-6
✻U401	23786412	DEF/CONV Board, PD0186
✻U901	23786420	SIGNAL Board, PD0194
⚠V901R	23008268	Protector Coupling 50R
⚠V902G	23008269	Protector Coupling 50G
⚠V903B	23008818	Protector Coupling 50B
Y101	23565389	Owner's Manual, English/Arabic, 50A9UM
Y101	23565390	Owner's Manual, English/Russian, 50A9UR
Y108	23122780	AC Adaptor, 2P (50A9UM)
ZC01	23148792	Module, MDCC12, D-CONVER

TOSHIBA CORPORATION

1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN